

**SOCIAL TIES, SHARED VALUES, AND TURNOVER AT THE TOP OF
UNDERPERFORMING FIRMS**

A Dissertation

by

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ABSTRACT

This dissertation explores how social ties and shared political values among top management teams (TMTs) and directors influence who leaves the firm when it is underperforming. It does so in two distinct studies, using data on executive and director turnover and performance of S&P 1500 firms between 2000 and 2014.

The first study examines how individual executives' ties to the TMT, including the CEO independently, affect their likelihood of exit in underperforming firms. I argue that greater links to the CEO and the rest of the team—via education, employment, and political ties—will decrease executives' likelihood of exit in underperforming firms by increasing their level of integration with other team members. I also suggest that greater pay disparity between a given executive and the CEO or the rest of the team will reduce this effect by decreasing executives' identification with their role and perceptions that they are valued members of the team. Results generally provide support for these arguments and particularly indicate the importance of employment ties and ties to the CEO in reducing executive turnover.

The second study builds on these concepts to explore how these same ties affect power contestation within the triad of the CEO, the TMT, and the board in underperforming firms. I argue that assigning blame is a social process, such that blame for poor performance will fall on whichever member of the triad is most dissimilar, increasing their likelihood of exit. I also suggest that the level of structural power of the

dissimilar group will reduce this effect by preventing forced turnover. Finally, I argue that when dissimilar members take the blame for poor performance, this will result in a downward spiral scenario in which forced exit prevents turnaround and leads to poorer subsequent performance. Results provide some support for these arguments and indicate that ties to the board may be especially important in predicting whether the CEO or other members of the TMT exit. They also provide evidence that forced turnover of the CEO, but not of the TMT or board, is detrimental to subsequent performance.

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1. INTRODUCTION

Despite the considerable body of research exploring turnover at the top of organizations (Giambatista, Rowe, & Riaz, 2005; Kesner & Sebor, 1994), one question that remains unsettled is how relational dynamics among top organizational members affect who leaves the firm. Research seeking to answer this question has typically drawn from the upper echelons perspective and related theory on organizational demography (Hambrick & Mason, 1984; Pfeffer, 1983) to explore how the demographic or experiential composition of the top management team (TMT), which are presumed to influence interpersonal attraction and social cohesion among team members, affect turnover. Studies have used a variety of demographic and experiential measures to test this relationship, including tenure, age, industry or functional experience, and education level, but have yielded mixed results. Whereas some have found that diversity along some of these dimensions increases turnover (e.g., Ucbasaran, Lockett, Wright, & Westhead, 2003; Wagner, Pfeffer, & O'Reilly, 1984), many have found null effects for these measures (e.g., Jackson et al., 1991; Ucbasaran et al., 2003; Wiersema & Bantel, 1993) and some have even found effects in the opposite direction (e.g., Boeker & Wiltbank, 2005).

A careful reading of this literature reveals at least three possible explanations for these equivocal findings. First, it may be that the dimensions of TMT composition examined in the past are not closely related to the relational dynamics they presumably measure. While the practice of using executives' observable characteristics as proxies for unobservable constructs may be just as necessary now as it was when first proposed

in Hambrick and Mason's (1984) seminal work on the upper echelons perspective, there are likely observable characteristics other than demographics or broad experience that better align with TMT relational dynamics. In particular, research on team processes at lower levels of the organization has distinguished between surface-level diversity, which relates to demographic characteristics, and deep-level diversity, which relates to attitudes, shared experiences, beliefs, and values (Harrison, Price, & Bell, 1998; Jackson, May, & Whitney, 1995; Milliken & Martins, 1996), and suggests that deep-level differences are stronger predictors of team cohesion than surface-level differences. Building on this idea, upper echelons research would likely benefit by identifying and studying characteristics of executives that are more closely linked to deep-level comparisons than broad demographics and experience.

Second, the mixed findings in extant research may indicate that the effects of relational factors depend on the context. Importantly, however, scholars have mostly not considered how the strategic context influences the relationship between TMT composition and turnover. This is a significant oversight, especially given fairly consistent findings in research studying the strategic antecedents of turnover (see Finkelstein, Hambrick, & Cannella, 2009). Specifically, research from a strategic perspective has shown that executive turnover increases during times of poor performance or crisis (e.g., Arthaud-Day, Certo, Dalton, & Dalton, 2006; Wagner et al., 1984; Walsh, 1988; Walsh & Ellwood, 1991) or when the firm is operating in unstable or complex environments (Wiersema & Bantel, 1993). It has also shown that turnover of top executives (and particularly the CEO) is influenced by agency conditions such as

board independence and executive career horizons (Krause & Semadeni, 2014; Laux, 2008). At the same time, because this work has conceptualized turnover at the level of the system rather than the individual level (Wagner et al., 1984), it has tended to study *whether* turnover occurs in a firm without considering *which* individuals leave the firm. In this regard, integrating strategic and relational perspectives may not only help to clarify mixed findings associated with the effects of TMT composition (Carpenter, 2002), but may also inform the strategic perspective by clarifying who is most likely to exit when turnover occurs.

Third, research from a relational perspective has not included directors in analyses of turnover at the top of organizations. Yet, research from a strategic perspective suggests that the same factors that influence executive turnover may also affect director exit (Arthaud-Day et al., 2006; Semadeni, Cannella, Fraser, & Lee, 2008; Srinivasan, 2005). Moreover, based on Finkelstein and colleague's (Finkelstein & Hambrick, 1996; Finkelstein et al., 2009) concept of the "supra TMT", which essentially considers boards an extension of the executive team, failing to consider how directors play into the relational dynamics at the top of the organization may lead to theory and findings that are underspecified. Overall, these issues lead me to question: what relational characteristics most influence turnover within an organization's dominant coalition? When are the effects of these characteristics on turnover most evident? And how do they simultaneously affect turnover of the CEO, other top executives, and outside directors?

1.1. GENERAL APPROACH OF THE DISSERTATION

This dissertation seeks to answer these questions by developing novel theory on the effect of internal composition on top organizational member turnover in two distinct studies. The theory integrates the notion of deep-level diversity with various concepts from the domains of social psychology and sociology, including concepts from the identification literature and research on social network ties, to explore how social ties and shared values influence turnover at the top of firms. I specifically examine the effects of educational and employment ties and shared political values on turnover of top organizational members.

As a starting point for both studies, I argue that the effects of these relational factors will be most evident in underperforming firms. This argument follows the social identification literature (Ashforth & Mael, 1989; Tajfel & Turner, 1985; Turner, 1975, 1984), which suggests that similarities and differences between individuals become most salient under conditions of tension or conflict (Ashforth & Johnson, 2001). Within an organization, underperformance represents a high-pressure context that is likely to increase conflict between members at the top of the organization as they seek to assign blame for the firm's strategic failings and encounter pressure from shareholders to improve the situation. Under these conditions, similarities and differences between top decision makers will become more salient. As such, I argue that the relationships between social ties as well as shared values and turnover will be more pronounced in underperforming firms relative to superior performing firms.

Building from that point, the first study seeks to understand how the social ties and values shared between individual executives and the CEO or the rest of the team affect their likelihood of exit when the firm is performing poorly. The general argument is that, while overall turnover levels may rise when the firm is performing poorly, a stronger relationship between any given executive and the CEO or the rest of the team via social ties and shared values will reduce that executive's likelihood of departure. This is because these links, which I suggest are more representative of deep-level similarities than factors examined in the past, will enhance the executive's sense of integration and identification with the CEO and the rest of the team and strengthen his or her desire to remain with the firm and improve its performance. The study also considers how different types of identification may interact to determine exit outcomes for executives in underperforming firms. Specifically, it examines how pay disparity influences the effect on exit of social ties and shared values, which are indicative of social identification and integration, by altering executives' perception of themselves as valued members of the team and their identification with their role.

The second study expands on the concepts of the first to examine how these same social ties and shared values influence power contests at the top of underperforming firms by affecting the relative strength of the relationships between the triad of the CEO, the TMT, and the board. I argue that the assignment of blame for poor performance is a social process such that the more tightly connected are any two members of the triad, the greater the likelihood that members of the dissimilar group will be directly or indirectly pushed out of the firm. I also explore how structural power moderates these relationships

by affecting the ability of any two groups to force members of the third out of the firm. In this way, I consider how relational and structural power may interact to determine who leaves the firm when it is performing poorly. In addition, I argue that forced exit is likely to lead to a downward spiral scenario as ineffective managers and/or directors are retained and those members with perhaps the best likelihood of encouraging turnaround leave the firm.

1.2. CONTRIBUTIONS OF THE DISSERTATION

By exploring how social ties and shared values influence turnover and power contests at the top of firms, this dissertation makes a number of contributions to management research. The first study extends work on executive turnover by developing novel theory and measures of factors that are more closely associated with deep-level diversity and that help to clarify the effects of team composition on turnover outcomes for individual executives. At the same time, it controls for the measures used in past work in order to demonstrate the importance of these indicators of deep-level similarities above and beyond the broader demographic and experiential measures. It also distinguishes between individuals' relationship with other team members versus their relationship with the CEO, in particular, and how these separately affect the likelihood of exit. Finally, by exploring how the performance context of the firm influences how these relational factors affect turnover, it provides a greater understanding of the interaction between strategic and relational antecedents of executive turnover and when relational factors may be most salient.

The second study further extends research on executive and director turnover by exploring how these same relational factors affect power contests between the CEO, TMT, and board in underperforming firms. Despite consistent findings related to the direct relationship between poor performance and turnover for each of these individual groups (e.g., Arthaud-Day et al., 2006; Cowen & Marcel, 2011; Fama, 1980; Puffer & Weintrop, 1991; Srinivasan, 2005; Wowak, Hambrick, & Henderson, 2011), research has seldom explored simultaneous turnover for these members. By exploring how the social links among all members of the firm's dominant coalition influence power contestation, this study develops knowledge regarding which organizational member is most likely to exit when a firm is underperforming.

The dissertation also expands research on turnover by extending the focus from CEOs to other organizational members. Although scholars have done much to build our understanding of CEO turnover and succession, we still know relatively little about the antecedents of turnover for other top executives and members of the board. Additionally, while the strategic antecedents of turnover are generally well established, research has yielded mixed findings related to the effects of compositional or relational factors. Overall, by examining the dynamic relationships between the CEO, TMT, and board in a given firm, this dissertation adds insights to the processes leading to exit of a broader range of organizational members at the top of the firm.

2. STUDY 1

Executive turnover has strong implications for the future direction and performance of firms (Huson, Parrino, & Starks, 2001; Kesner & Dalton, 1994; Miller, 1993). As a result, scholars have devoted considerable attention to exploring its antecedents. Extant research has particularly emphasized the role of firm performance and the environment in predicting executive turnover, generally finding evidence that these factors are relevant antecedents (see Finkelstein et al., 2009). However, recognizing that organizations are fundamentally relational (Wagner et al., 1984), some have also sought to explicate the relational drivers of exit. In general, this work has suggested that the composition of the top management team (TMT), as reflected by demographic or experience diversity, affects TMT turnover by influencing the relational dynamics elsewhere shown to predict turnover outcomes, such as social cohesion, integration, and relational conflict (Michel & Hambrick, 1992; Simsek, Veiga, Lubatkin, & Dino, 2005; Wagner et al., 1984). Yet, results across studies have been mixed. Although some have found that diversity along these dimensions increases turnover (e.g., Wagner et al., 1984), others have found null effects (e.g., Jackson et al., 1991; Wiersema & Bantel, 1993) and some have even found effects in the opposite direction (e.g., Boeker & Wiltbank, 2005).

This work helps to illustrate that much is still unknown regarding the effect of relational factors on executive turnover. In particular, given weak relationships between turnover and demographic and experience diversity, we are left to question whether there may be other elements of TMT composition that are more relevant to internal dynamics

and subsequent turnover outcomes. Further, while scholars have explored strategic and relational antecedents separately, little work has attempted to integrate these disparate research streams to answer the question of how these factors may interact to predict executive turnover. Given evidence that the effects of relational factors largely depend on the context (Carpenter, 2002), it is likely that exploring this question may clear up some of the mixed findings in extant work. Relatedly, this may also extend past research on the strategic antecedents of turnover, which has generally focused on overall TMT turnover, to address whether relational factors help to predict which specific individuals leave when the firm is underperforming.

This study builds on these opportunities and seeks to extend work on executive turnover by developing and testing theory related to the effect of social ties and shared values on executive turnover in underperforming firms. Drawing primarily on theory and research from the social network and identification literatures, I explore how education ties, employment ties, and shared political values between individual executives and the rest of the TMT, including the CEO specifically, influence their likelihood of exit when things go poorly. I argue that, while underperformance may increase overall rates of turnover, executives with stronger links to the CEO or the rest of the TMT will perceive a greater sense of integration and commitment to the team and will be less likely to exit than less connected individuals. I also explore how pay disparity moderates these relationships by affecting executives' identification with their role and the CEO as well as their perception that they are valued members of the team. Prior to developing these

arguments, however, I first provide a brief summary of the research on executive turnover as a motivation for exploring the relationships I examine.

2.1. BACKGROUND

As previously indicated, extant research examining the antecedents of executive turnover has been dominated by studies exploring strategic factors such as firm performance, agency conditions, and/or the environment (see Finkelstein et al., 2009). This research has consistently demonstrated that turnover of top executives increases when a firm is performing poorly (e.g., Wagner et al., 1984; Walsh, 1988; Walsh & Ellwood, 1991) or when it is operating in unstable or complex environments (Wiersema & Bantel, 1993). Similarly, this work has found that turnover rises above “normal levels” within target firms following acquisitions and these effects are intensified for firms with a history of poor performance (Walsh, 1988; Walsh & Ellwood, 1991). Research has also provided evidence that turnover of top executives, and particularly the CEO, depends on factors associated with corporate governance and agency conditions within the firm, such as the degree of board independence or executive career horizons (Krause & Semadeni, 2014; Laux, 2008). Overall this work suggests that executive turnover often represents an adaptation or turnaround strategy intended to help struggling firms realign with their competitive environment and that it is dependent on the governance of the firm.

To a more limited extent, scholars have also explored how composition of the TMT, as an indicator of team relational dynamics, affect executive turnover. This work has generally posited that diversity increases turnover rates within the TMT and the

likelihood of individual turnover because it decreases integration and leads to internal conflict (Jackson et al., 1991; Wagner et al., 1984; Wiersema & Bird, 1993). To test this proposition, scholars have examined broad characteristics associated with executive demography or experience, such as age, tenure, industry or functional experience, and education level. Yet, results across studies have been mixed. For instance, in a sample of Fortune 500 firms, Wagner et al. (1984) found positive relationships between both demographic heterogeneity team-level turnover rates as well as individual demographic dissimilarity and the likelihood of individual-level exit. By contrast, Boeker and Wiltbank (2005) found that greater functional diversity decreased exit in entrepreneurial firms. However, the majority of work in this area has found little or no effect of demographic and experiential dimensions on turnover of top executives (e.g., Jackson et al., 1991; Wiersema & Bantel, 1993).

A review of this work suggests a few possible reasons why scholars have struggled to come to any sort of consensus understanding of the relationship between team composition and executive turnover. One possible explanation is that past work may have been limited by scholars' use of broad demographic and experiential characteristics to proxy for deeper, social processes. In this regard, the distinction between surface-level diversity and deep-level diversity from the organizational behavior literature (Harrison et al., 1998) may be helpful in developing a clearer understanding of the factors that contribute to social dynamics within executive teams. This research suggests that surface-level diversity related to demographic characteristics, which have largely been the focus of past work, is a much weaker determinant of social

dynamics than deep-level diversity, which reflect individuals' shared experiences, beliefs, and values (Harrison et al., 1998; Jackson et al., 1995; Milliken & Martins, 1996). Thus, while the use of proxies may be necessary to examine these relationships at the highest levels of the firm (Hambrick & Mason, 1984), research could greatly benefit from the examination of factors that more closely resemble deep-level diversity.

A second possible explanation for the equivocal findings in extant work is that this work has mostly not explored how the relationship between social factors and turnover may differ based on the context in which the TMT is operating. This is surprising, given consistent evidence regarding the strength of the relationship between strategic factors, and especially performance, and turnover (e.g., Wagner et al., 1984; Walsh, 1988; Walsh & Ellwood, 1991). Indeed, the strategic context may be critical in determining how diversity affects social dynamics (Carpenter, 2002) and, in turn, turnover outcomes.

This idea is reflected in the social identification literature (Ashforth & Mael, 1989; Tajfel & Turner, 1985; Turner, 1975, 1984), which offers theory to describe the way individuals view themselves and others within the social environment. From this perspective, much of what people do in a social context is motivated by a desire to fulfill intrinsic needs such as maintaining or enhancing a sense of self-esteem, belonging, distinctiveness, efficacy, meaning, and/or stability (Lange, Boivie, & Westphal, 2015; Vignoles, Regalia, Manzi, Golledge, & Scabini, 2006). These motives lead to “psychological grouping” in which individuals classify themselves and others into social categories or groups based on salient characteristics of category “members” (Tajfel &

Turner, 1985; Turner, 1985). Importantly, however, the characteristics used for these grouping processes become most salient under conditions of tension or conflict (Ashforth & Johnson, 2001). In this regard, similarities and differences among top managers may be most salient when the firm is underperforming, since underperformance represents a context in which conflicts are likely to arise. In the following section, I build on these ideas to explore how factors that are more closely linked to deep-level diversity affects who leaves the firm in the context of underperformance.

2.2. THEORY AND HYPOTHESES

At the top of the organization, underperformance is one situation that may increase tension or conflict between TMT members, as both internal and external constituents seek to assign blame for the firm's strategic failings (e.g., Barton & Mercer, 2005; Boeker, 1992; Clapham & Schwenk, 1991) and pressure boards and executives to make changes to improve the situation (e.g., Bethel & Liebeskind, 1993; Davis & Thompson, 1994). At the same time, underperformance (or performance under that of competitors) is common enough that it is unlikely to cause mass exit, as would be the case under circumstances of extreme poor performance or firm crises such as financial reporting failures or bankruptcy (e.g., Arthaud-Day et al., 2006; Gomulya & Boeker, 2014; Semadeni et al., 2008). Further, because forced exit is most likely to occur only in severely underperforming firms (Conyon & Florou, 2002), executives likely have at least some level of discretion in deciding whether to leave the firm. Thus, while poor performance may increase overall levels of turnover (e.g., Wagner et al., 1984; Walsh,

1988; Walsh & Ellwood, 1991), who specifically leaves the firm may depend on the relationships among executives, as determined by their level of connectedness or similarity.

At the same time, not all similarities and differences are likely to affect team dynamics and subsequent turnover equally. Rather, characteristics related to deep-level similarities, or shared experiences, beliefs, and values, are likely to have a more prominent effect on relational dynamics than demographic or other surface level similarities (Harrison et al., 1998; Jackson et al., 1995; Milliken & Martins, 1996). Here, I develop theory related to three factors that may be more indicative of deep-level similarities for TMT members—education ties, employment ties, and shared political values. For each, I describe its relevance to executives, how it relates to deep-level similarities, and how it subsequently influences a given executive's likelihood of leaving the firm when it is underperforming. Importantly, I also suggest that these characteristics will have an independently meaningful beyond (and controlling for) the effect of demographic characteristics.

2.2.1. Education Tie Strength

One relevant aspect of executives' social context that may affect their likelihood of turnover in underperforming firms is the strength of their ties to other executives through shared university affiliations (i.e., a common alma mater). Indeed, for members of the corporate elite, educational credentials are not just a signal of human capital in terms of intelligence or skill (e.g., Colombo, Delmastro, & Grilli, 2004; Pennings, Lee, & Van Witteloostuijn, 1998), but may also affect their social capital by affecting their

relative social standing or membership in social groups (e.g., Belliveau, O'Reilly, & Wade, 1996; D'Aveni, 1990; Erkens & Bonner, 2013). From a social identity perspective, this is because education ties represent a salient characteristic used for psychological grouping, which also increases identification between individuals who share them (Mael, 1988; Mael & Ashforth, 1992). That is, because individuals often take pride in their alma mater, they are likely to identify with and show favoritism towards other alumni. This tendency is likely irrespective of the time that has passed since attending the school or the number of other schools attended (e.g., Mael & Ashforth, 1992). Based on a social networks perspective, this may be because education ties are among the most stable forms of social networks (Nguyen, 2012) and affect individuals' social worlds and interpersonal relationships by creating "divides in [their] personal environments" (McPherson, Smith-Lovin, & Cook, 2001: 415).

In addition, sharing similar backgrounds and personal experiences through common university affiliations may be associated with similarities in attitudes, beliefs, and value systems as well as a common language (Wiersema & Bird, 1993). For instance, alumni of the same school would be familiar with the customs, traditions, or other idiosyncratic elements of their alma mater, encouraging greater identification and cohesion between these individuals (George & Bettenhausen, 1990; Mael & Ashforth, 1992). Further, although individuals consider a number of factors when selecting a university (Maringe, 2006), particular universities are likely to attract similar, like-minded individuals who are drawn to the school based on the culture, environment, and stated values of the school. In this way, education ties may be reflective of deep-level

similarities because of both a selection effect (i.e., individuals selecting into universities based on deep-level characteristics) and a treatment effect (i.e., socialization and experiences at the institution allow individuals to develop deep-level similarities). In either case, these ties would lead to enhanced cohesion and cooperation among executives who share them.

Moreover, these dynamics should be more pronounced for individuals who attended the same university during the same period. In part, this is because concurrently attending the same university would increase the perception of joint experience, which is associated with a common language (Johannisson, 1987) and can enhance social identification. Further, concurrent attendance also increases the likelihood that individuals would have directly interacted while at the university (e.g., been in the same courses, gone to the same social gatherings, etc.). Having attended the university at the same time would therefore increase the likelihood that the working relationship came from a previous friendship tie, which would increase trust, mutual respect, and shared identity between executives (e.g., Chua, Ingram, & Morris, 2008; McGrath & Krackhardt, 2003; Rydgren, Sofi, & Hällsten, 2013).

In turn, during times of underperformance, executives with greater education ties to others on the team will be less likely to leave the firm because they will experience greater cohesion and lower levels of conflict with the rest of the team (e.g., Friedkin, 2004; George & Bettenhausen, 1990). Indeed, extant research on the corporate elite has found that greater identification between executives increases collaboration and leadership effectiveness (e.g., McDonald & Westphal, 2010, 2011) as well as positive

perceptions of and involvement in the organization and cooperation with other group members (e.g., Dutton, Dukerich, & Harquail, 1994). Additionally, since education ties heighten identification between individuals, executives with greater ties to the rest of the team through shared university affiliations may be more committed to the team and more willing or likely to remain with the firm to help improve its situation (Withers, Corley, & Hillman, 2012).

Further, education ties between an executive and the CEO may have particularly strong effects relative to, and independent of, the ties between the executive and the rest of the team. This is because the CEO is typically the most powerful and influential member of the managerial team (Smith, Houghton, Hood, & Ryman, 2006). In part, this dominance will encourage classical identification (Kelman, 1961) in which executives strive to appease or emulate the CEO and subsequently have greater commitment to that individual (Ashforth & Mael, 1989). As such, individuals with strong ties to the CEO will be more likely to remain in the firm and to support the CEO when things go poorly. Additionally, because the CEO may have some direct control over who is blamed and ultimately dismissed for poor performance (Boeker, 1992), links to the CEO may be particularly important in determining whether an executive leaves the firm when it is underperforming. That is, executives may be in a better position to avoid blame or may be protected by the CEO, thus retaining their position.

Of course, ties to the CEO may only protect an executive when the CEO him- or herself is not dismissed for poor performance. In this regard, while past work has demonstrated a positive relationship between poor performance and CEO turnover, it has

also suggested that CEO dismissal is most likely to occur in severely underperforming firms and that CEOs are often able to avoid dismissal in circumstances other than extreme poor performance or crisis (Boeker, 1992; Conyon & Florou, 2002; Fisman, Khurana, Rhodes-Kropf, & Yim, 2014). I therefore argue that, in most cases, CEOs will remain even in underperforming firms such that stronger ties to the CEO will decrease the likelihood of individual executive turnover. Overall, I posit:

Hypothesis 1.1: Stronger education ties between an executive and (a) the CEO or (b) the rest of the TMT (excluding the CEO) will decrease the likelihood that the executive will leave the firm when it is underperforming.

2.2.2. Employment Tie Strength

Another factor that may influence executives' likelihood of leaving the firm during times of underperformance is the strength of their ties to the rest of the team via common employment histories. Similar to education ties, employment histories not only reflect executives' human capital or expertise (e.g., Harris & Helfat, 1997; Pennings et al., 1998), but may also reflect individuals' social capital and may form the basis for their personal networks (Belliveau et al., 1996). Also similar to education ties, common company affiliations enhance social identification and increase cohesion among those who share them (Hogg & Turner, 1985; Turner, 1984). As stated by Beckman (2006: 743), "team members with common prior company affiliations have a shared language, culture, and narratives". Employment ties are therefore likely to reflect deep-level similarities that will enhance integration and cohesion among executives (Wiersema & Bird, 1993) as well as their sense of mutual respect and shared identity (Chua et al., 2008; McGrath & Krackhardt, 2003; Rydgren et al., 2013).

Consistent with the arguments in the previous section, the effects of employment ties should also be stronger for those with shared time at a prior employer as compared to those who worked for the company at different times. Again, this is because executives with shared time at a prior employer are likely to have known each other and worked together directly, which would improve the nature and extent of communication, integration, and cohesion between them (e.g., Eisenhardt & Schoonhoven, 1990; Wiersema & Bird, 1993). Such ties may also reflect that the current working relationship materialized because of a previous friendship tie, which again, is associated with mutual respect, trust, and shared identity (e.g., Chua et al., 2008; McGrath & Krackhardt, 2003; Rydgren et al., 2013). In addition, executives with contemporaneous employment at a prior company would have experienced the same dynamics (e.g., culture, leadership, etc.) or strategic events (e.g., mergers, divestitures, etc.), increasing their level of identification with each other. Moreover, such shared experiences need not engender pride in the prior employer or be positive to encourage identification. Rather, because “identification is seen as personally experiencing the successes *and failures* of the [psychological] group” (Ashforth & Mael, 1989: 21, emphasis in original; see also Foote, 1951; Tolman, 1943), even shared negative experiences or failures at a previous employer would enhance identification and cohesion among individuals.

Overall, executives with stronger employment ties to the rest of the team will identify more and be more committed to the team. When difficulties arise in the firm, then, these individuals will be more likely to remain with the firm than less-connected executives (Withers et al., 2012). In addition, following the same logic presented in the

previous section, these effects are likely to be especially and independently predictive for ties to the CEO relative to the rest of the team. Thus, I posit:

Hypothesis 1.2: Stronger employment ties between an executive and (a) the CEO or (b) the rest of the TMT (excluding the CEO) will decrease the likelihood that the executive will leave the firm when it is underperforming.

2.2.3. Shared Political Orientations

In addition to social ties, the degree of overlap in executives' political orientations is another factor that is likely to influence turnover at the top of underperforming firms. In general, political orientations are a major indicator of one's belief systems and core values (see Goren, 2005) and, therefore, represent another deep-level characteristic that would affect the relationships among group members. Moreover, given evidence that executive political ideologies are often reflected in firm strategy and decisions (e.g., Chin, Hambrick, & Treviño, 2013; Christensen, Dhaliwal, Boivie, & Graffin, 2015), these orientations are likely to come into the workplace and become a relevant aspect of executive team dynamics.

Similar to the other characteristics examined, political affiliations are also a relevant factor contributing to psychological group formation and social identification (Deaux, Reid, Mizrahi, & Ethier, 1995). They are thus likely to affect the degree of cohesion and conflict among executives. For instance, research on political identity suggests that affiliates of major political parties tend to psychologically discriminate in favor of their own party and against the opposing party (e.g., Duck, Terry, & Hogg, 1998; Fowler & Kam, 2007; Huddy, 2001). This is true even when individuals perceive some differences between their personal political positions and those of the political

party (e.g., Duck, Hogg, & Terry, 1995). As such, political affiliations are likely to lead to increased intragroup cohesion, while simultaneously increasing inter-group conflict (see Huddy, 2001; Monroe, Hankin, & Vechten, 2000).

The tendency for executives' political orientations to affect team dynamics may be even more likely during periods of underperformance, since tensions will already be high and similarities and differences in executives' values will become more evident (Harrison et al., 1998). Under these circumstances, executives who lean towards the dominant political orientation of the team are likely to experience greater identification and have a greater sense of integration with the team than those who do not. In turn, these executives would be more committed to the team and more likely to remain with the firm. At the same time, based on the same arguments regarding the relative importance of ties to the CEO, executives who share political orientations with the CEO may also be less likely to leave irrespective of whether those orientations reflect the dominant position of the rest of the team. Altogether, then, I posit:

Hypothesis 1.3: Shared political orientations between an executive and (a) the CEO or (b) the rest of the TMT (excluding the CEO) will decrease the likelihood that the executive will leave the firm when it is underperforming.

2.2.4. Moderating Role of Pay Disparity

To this point, I have argued that stronger social ties and shared values may decrease exit for individual executives in underperforming firms by increasing their level of integration and social identification with other members of the team. However, other contextual factors may also be pertinent in determining whether these ties will reduce an executive's likelihood of exit. In particular, research suggests that multiple forms of

identification (i.e., social identification, relational identification, role identification, organizational identification) often interact to determine actors' behavior (e.g., Sluss & Ashforth, 2007, 2008). In the context of turnover from underperforming firms, Withers et al. (2012) specifically suggested that individuals' identification with their role may compete with their collective identity (i.e., social identity) to determine whether or not they leave the firm. Although the authors make this argument for corporate directors, because executives and directors are both members of the corporate elite, I suggest that this logic should apply equally well to executives. In particular, I argue that an executive's identification with the group and their identification with their role as one of the firm's executives may interact to determine their likelihood of exit.

In general, role identification reflects the meaning obtained by an individual by virtue of maintaining a particular role position (Hogg, Terry, & White, 1995; Stryker, 1980). However, one's identification with a specific position may vary based on the context and whether it fulfills their expectations of the meaning they associate with their role. For executives, one factor that may have a particularly important effect on their identification with their position is pay disparity between them and other members of the team. Within the management literature, pay disparity denotes relative compensation either between executives and the CEO, referred to as "CEO pay gap" (e.g., Gnyawali, Offstein, & Lau, 2008; Ridge, Hill, & Aime, 2017), or between a given executive and the rest of the team (e.g., Fredrickson, Davis-Blake, & Sanders, 2010; Ridge et al., 2017; Siegel & Hambrick, 2005). In this way, compensation often becomes the basis for social

comparisons and may influence how executives view their position and the meaning they derive from being an executive of the firm.

Executives whose pay is substantially lower than either the CEO or other members of the team are likely to experience lower levels of satisfaction and identification with their position (Wall & Nolan, 1986, 1987). In part, this is because relative pay often reflects power dynamics within the team. Since executives tend to be highly ambitious and desire autonomy in their positions (e.g., Harrell & Alpert, 1979; Olujide & Badmus, 1998), any factor that reduces their perceptions of power will decrease their sense of fulfillment and identification with their role (Lorsch & MacIver, 1989). Similarly, higher pay disparity may weaken executives' perceptions that they are valued members of the team and thus limit the sense of integration that would come from links to other TMT members. When the firm is underperforming, then, even executives with links to the rest of the TMT may be less committed to the firm and less likely to remain to help improve the situation. I therefore posit:

Hypothesis 1.4: Greater pay disparity between an executive and (a) the CEO or (b) the rest of the TMT will weaken the negative relationship between education ties with the CEO or the rest of the team, respectively, and the likelihood that the executive will leave the firm when it is underperforming.

Hypothesis 1.5: Greater pay disparity between an executive and (a) the CEO or (b) the rest of the TMT will weaken the negative relationship between employment ties with the CEO or the rest of the team, respectively, and the likelihood that the executive will leave the firm when it is underperforming.

Hypothesis 1.6: Greater pay disparity between an executive and (a) the CEO or (b) the rest of the TMT will weaken the negative relationship between shared political orientations with the CEO or the rest of the team, respectively, and the likelihood that the executive will leave the firm when it is underperforming.

2.3. METHODS

2.3.1. Sample and Data Collection

The sample for this study includes 13,581 executives of 1,475 firms that were included on Standard & Poor's (S&P) 1500 at any point between 2000 and 2014. The base sample was drawn from Compustat Executive Compensation (Execucomp) database, which contains names, titles, annual compensation data, and demographic information for the highest paid executives of S&P 1500 firms since 1992. Executive education and employment information were taken from BoardEx database, which contains, among other things, education levels attained, degrees completed, and comprehensive employment histories for executives and directors of more than 800,000 major public and private organizations around the globe. To gauge political orientations, I used individual political contributions taken from the Center for Responsive Politics (CRP; opensecrets.org). CRP is a non-partisan research institute that provides summarized political data including all campaign contributions over \$200 made by individuals to U.S. political candidates since 1989, originally taken from the Federal Election Commission (FEC) website. Additional firm and industry data were collected from Compustat.

Except for the political data, all data used for the study were drawn from databases included on the list of public use datasets approved by Texas A&M University's Institutional Review Board (IRB). Additionally, political data taken from CRP included only publically available data that are identifiable without expectation of privacy.

2.3.2. Dependent Variable

The dependent variable for the first study is *individual executive turnover*, measured using a dichotomous variable coded 1 if the focal executive left the firm within a year of the year the independent and control variables were measured and 0 otherwise. I assessed turnover within a year in order to grant adequate time for the theorized relational dynamics to manifest following underperformance, without introducing error from changes in the composition of the TMT between the onset of underperformance and the time the executive left the firm.

For robustness, I also ran models using turnover within two and within three years of the focal year. Results related to my hypothesized relationships were consistent to those reported below for the two-year window but were not consistent for the three-year window. These findings seem to validate the concern that an excessive lag between the onset of poor performance and observed exit may introduce error, likely because of changes in the composition of the TMT. Specifically, the composition of the TMT will change over time and who is in the firm immediately preceding a given exit period is much more likely to affect turnover during that period than who was in the firm three years prior.

In addition, because Execucomp only lists the highest paid executives within a firm in a given year, it is possible that some observed “exits” are the result of the executives dropping out of the highest paid group rather than leaving the firm. To mitigate this issue, I performed a check for each executive to determine whether he or she reappeared as an executive of the given firm in the three years following the first

observed exit. In cases where the executive reappeared within three years, I recoded the first exit event as 0. Thus, the final turnover variable only takes the value 1 if the focal executive left the firm and did not reappear in the firm within three years of the initial exit.

2.3.3. Independent and Moderator Variables

The major independent variables for this study are education tie strength, employment tie strength, and shared political orientations. Each variable was constructed using a multi-phase approach and assessed for individual executives relative to the CEO as well as individual executives relative to the rest of the TMT (excluding the CEO).

I assessed education tie strength as the sum or sum of standard scores of two indicators of education ties: (a) common alma mater and (b) contemporaneous attendance at a common alma mater. To calculate this variable, I used data on prior university affiliations and degrees for each individual executive, including the name of the university and the year the degree was granted. I then matched university affiliations for each executive against the CEO and every other member of the TMT for every firm-year in the sample. To assess whether a given pair of executives had a common alma mater, I created a dummy variable coded 1 if they both received a degree from the same school, regardless of the level of the degree (i.e., bachelor's, master's, etc.). For executive pairs with a common alma mater, I then determined whether the executives had shared time at the university by comparing the years their degrees were granted and generating a dummy variable coded 1 if the executives received their degrees within the same two- or four-year window, based on the type of degree (i.e., bachelor's degrees

were assumed to be four-year programs, most masters degrees were assumed to be two-year programs, etc.). For comparisons against the CEO, I then calculated *education tie strength (CEO)* as the sum of these two dummy variables. As such, this variable not only reflects the existence of a tie between an executive and the CEO, but also indicates the relative strength of that tie.¹

I followed a similar procedure for comparisons against the TMT, except that before taking the standard scores, I created proportional measures by generating variables reflecting the number of members of the TMT with whom the focal executive had a common alma mater or contemporaneous attendance at a common alma mater, respectively, divided by the number of other non-CEO executives on the team. Thus, *education tie strength (TMT)* reflects the sum of standard scores of the proportion of the TMT that had a common alma mater with the focal executive and the proportion of the TMT that attended a common alma mater at the same time as the focal executive.²

I similarly assessed employment tie strength as the sum of standard scores of two indicators of employment ties: (a) common prior employer and (b) contemporaneous employment at a common prior employer. For this variable, I first gathered data on all

¹ As a robustness check, I also ran models separately including these indicators of education ties to the CEO as well as the indicators for ties to other members of the TMT. These models also included separate indicators for the employment ties to both the CEO and the rest of the TMT, described below. In these models, only the indicator for shared alma mater with the CEO remained statistically significant. This suggests that shared alma mater with the CEO may be a particularly important link, but also seems to support the notion that, beyond just the existence of a link, the strength of the link is relevant in determining executive exit.

² I also ran models using the *simple count* of executives with shared alma mater or contemporaneous attendance at an alma mater (i.e., rather than the proportion of executives with such a tie). These models also included simple counts for the employment ties described below. I found no change in the reported effects using these measures. I opted to use the proportional measure because it controls for the size of the TMT, allowing for clearer comparisons across firms.

prior company affiliations for each executive, including the name of the company as well as the executive's start and end dates. I then matched these affiliations following the same procedure used for education ties. As such, *employment tie strength (CEO)* is the sum of standard scores of dummy variables indicating whether the focal executive and the CEO had worked for the same prior employer and whether they were employed by that company at the same time. Likewise, *employment tie strength (TMT)* reflects the sum of standard scores of the proportion of the TMT that worked for the same prior employer as the focal executive and the proportion of the TMT that worked at a prior employer at the same time as the focal executive.

Following previous work (e.g., Chin et al., 2013; Christensen et al., 2015; Gupta & Wowak, 2017) I evaluated shared political orientations by comparing executives' political orientations with the CEO and other TMT members based on their individual political contributions to Republican versus Democratic candidates. Specifically, I measured each executive's political orientation as the amount of money he or she provided to republican candidates minus the amount provided to democratic candidates, divided by the total money provided to both democratic and republican candidates. This variable fell on a range from -1 to 1, where -1 indicates that all contributions were made to democratic candidates and 1 indicates that all contributions were made to republican candidates. Executives with no contributions to either party were assumed to be moderate and given a value of 0. Using this measure, I next created a categorical variable indicating whether the executive had political leanings towards the Democratic Party (i.e., political orientation less than 0), was a moderate (i.e., political orientation

equal to 0), or had political leanings towards the Republican Party (i.e., political orientation greater than 0). I then used this variable as the basis for comparisons against the CEO. Specifically, I measured *shared political orientations (CEO)* as a dichotomous variable taking the value 1 if the focal executive and the CEO had the same political orientation.

To measure shared political orientations between executives and the rest of the TMT, I compared each executive's political orientations to the average of the rest of the team. That is, for each firm-year, I first created a variable containing the average political orientation of other TMT members (outside of the focal executive and the CEO). Next, I used this variable to create an indicator of the political orientations of the rest of the TMT, similar to the individual-level variable described above. I then measured *shared political orientations (TMT)* as a dichotomous variable taking the value 1 if the focal executive's orientation was the same as the dominant orientation of the TMT.³

The moderators for this study include measures of relative compensation between executives and the CEO as well as the rest of the TMT. Relative compensation was evaluated using measures of the pay gap (e.g., Gnyawali et al., 2008; Henderson & Fredrickson, 2001). Specifically, *pay gap (CEO)* is operationalized as the annual compensation of the CEO, including salary, bonus, and stock option grants, minus the

³ As a robustness check, I also created and tested a measure reflecting the proportion of the TMT with the same political orientations as the focal executive similar to the education and employment tie variables. Results using this measure were unchanged. I chose to retain the dichotomous variable because, unlike the tie variables, I am not concerned here with tie strength, but with the predominately held beliefs and values of the rest of the team as a whole and whether the focal executive is likely to share those values.

annual compensation of the focal executive. Similarly, *pay gap (TMT)* is measured as the executive's annual compensation subtracted from the average compensation of the rest of the executive team (excluding the CEO). Thus, positive values indicate pay below the CEO or the average TMT member, respectively, and negative values indicate pay above the referent.

2.3.4. Control Variables

I also control for a number of variables with potential effects on turnover outcomes for executives. At the individual level, I control for executive gender and age. Given the relative difficulty women have breaking into the corporate elite (Oakley, 2000), female executives may place more value on any given position and be generally less likely to leave. The age of the executive is likely positively associated with turnover, as older executives may leave due to retirement. In addition, to eliminate possible confounding effects of executive exit due to death, I dropped all executives from the sample who fell out of the sample due to death.

At the team level, I control for various measures of demographic and experience diversity that have been widely examined in past work on executive turnover (Jackson et al., 1991; Wagner et al., 1984; Wiersema & Bird, 1993). I assessed demographic diversity along three dimensions: age, gender, and ethnicity. Gender and ethnic diversity were measured using Blau's (1977) heterogeneity index ($1 - \sum p_i^2$), where p_i equals the proportion of TMT members in each i^{th} category. Age diversity was assessed using the coefficient of variation on age, calculated for each firm-year as the standard deviation of the age of all TMT members divided by the average age of all TMT members. I assessed

experience diversity along four separate dimensions: education level, firm tenure, tenure in the focal firm's industry, and industry experience diversity (i.e., the number of industries in which each executive had experience). Similar to the demographic variables, I used Blau's (1977) index to calculate education level diversity. All other experience diversity measures were calculated using the coefficient of variation.

I also control for a number of firm-level variables, including CEO and TMT exit, firm size, and two indicators of firm crises shown to significantly influence turnover of executives. I measured CEO exit as a dichotomous variable and TMT exit as the proportion of executives (other than the focal executive or the CEO) who left the firm in the same one-year period for which I measured the dependent variable. Firm size was measured as the natural log of firms' number of employees in a given year (Henderson & Fredrickson, 2001). To account for firm crisis, I created two dummy variables respectively indicating whether there were material financial restatements in the firm in a given year and whether there were any lawsuits brought against the company in a given year (Arthaud-Day et al., 2006; Boivie, Graffin, & Pollock, 2012; Gomulya & Boeker, 2014). I also control for firm performance by splitting the sample on one-year lagged, industry-adjusted return on assets (ROA). I provide more description of this measure in the analysis section, below.

Finally, I control for various industry dynamics which have been shown to affect turnover of executives (Finkelstein et al., 2009; Wiersema & Bantel, 1993). I control for the level of competition in the industry using the size-weighted industry concentration ratio (Wiersema & Bantel, 1993). I also control for industry dynamism and munificence

following the method outlined by Connelly, Haynes, Tihanyi, Gamache, and Devers (2013).⁴

2.3.5. Analysis Strategy

In order to test my hypotheses regarding the effects of social ties and shared political values on executive turnover in underperforming firms, I used random effects logistic regression and split the sample on performance, measured as one-year lagged, industry-adjusted ROA. I used ROA to assess performance because that is the most commonly used measure of firm performance in the management literature and is a good indicator of the size-weighted profitability of the firm. Comparing firm ROA to the industry average allows me to control for industry effects on profitability. That is, a firm's profitability is at least partially a function of the industry, since different industry characteristics affect the cost structure and margins that are obtainable by industry participants. What may be low profitability in one industry may be closer to average or even high profitability in another. Thus using industry-adjusted ROA allows me to provide an objective assessment of firms' high versus low performance relative to similar firms.⁵

⁴ In separate analyses, I also tested models including industry fixed effects. Results were unchanged in these models; however, there was significant multicollinearity between industry dummy variables, so I excluded them from the reported results.

⁵ As robustness checks, I also tested models where I operationalized performance as the two-year average of industry-adjusted ROA and where I included continuous interactions with the performance measures and the independent and moderator variables rather than splitting the sample. Results of models in which I split the sample on the two-year average of industry-adjusted ROA were generally consistent with those reported below. In the models using continuous interactions with the performance variables, most of the hypothesized variables did not have statistically significant effects. However, these results are also consistent with the reported results, since I observe significant effects in both low- and high-performing firms. That is, as I describe in the Discussion section, the effects of social ties and shared values on executive exit appears not to be dependent on the performance of the firm.

Although the Hausman test was significant ($\chi^2=1073.86$, $p<0.001$), I opted to use random effects rather than fixed effects models to avoid creating sampling bias. That is, fixed effects models require variance in the dependent variable, but not every panel in the data experienced an executive departure. Thus, applying fixed effects would have removed all panels without a departure prior to performing the analysis, leading to possible sampling bias by restricting the analysis to only executive-firm pairs that experienced a departure. Random effects are also desirable in this case because they provide more efficient estimates of variables with little within-subject variability over time (Allison, 2009), which is the case for the independent variables included in this study. In all analyses, I also used robust standard errors, clustered on firm, to account for common firms across panels.⁶

2.4. RESULTS

Table 1.1 provides summary statistics and correlations for all variables for the full sample of firms used in the study. Individual executive exit occurs in 24 percent of executive-firm-years. In addition, the average age of an executive across the sampling frame is about 52 and only about 8 percent of executives are female. In order to examine patterns of turnover more closely, I also ran correlations for the subsamples of under- and superior-performing firms, collapsing values to the firm-year level.⁷ For the

⁶ Still, for robustness, I did run fixed effects models and I also tested models using discrete event history analysis, in which I estimated effects using a basic logit model with time dummies included. While there was some variance in the significance level of the independent variables, results across these models generally demonstrated a consistent pattern. Specifically, employment ties and ties to the CEO were consistently statistically significant for both low- and high-performing firms regardless of the estimation method used, whereas there was much less consistency in the significance of education ties and ties to the rest of the TMT.

⁷ These tables are not shown, but are available from the author upon request.

subsample of underperforming firms, CEO turnover occurs in about 5 percent of firm years and the average proportion of non-CEO executives leaving the firm each firm-year is 14 percent. For the subsample of superior-performing firms, CEO turnover occurs about 3 percent of the time and the average level of non-CEO executive turnover is 11 percent. These values confirm past research that suggests poor performance leads to higher rates of CEO and TMT turnover. At the same time, they seem to support the idea that, more often than not, CEOs remain in the firm even when it is underperforming.

For the most part, correlations appear to be reasonable and do not indicate multicollinearity. There are, however, a few variables with relatively higher correlations. These include the correlations between employment tie strength with the CEO and with the rest of the TMT (0.64) and executive gender and TMT gender diversity is (0.48). The high correlation between the gender variables is not surprising, given the small number of female executives in the sample. That is, a female executive is likely to be the only woman (or one of only a very few women) on the TMT; thus, their presence would greatly affect the gender diversity of the overall team. However, the correlation between the employment tie variables is intriguing. This correlation may be indicative of the small-world effect of employment ties and the tendency of executives to work within the same network of individuals when moving between firms (Davis, Yoo, & Baker, 2003; Mills, 1956; Nguyen, 2012). In a way, this also provides some initial support for the relative strength of employment ties in affecting the composition of the TMT.

In spite of these few relatively high correlations, collinearity diagnostics appear to be well within reasonable limits. Specifically, after running ordinary least squares

models and calculating variance inflation factors (VIFs), the mean VIF was 1.15 and no VIF exceeded 1.70. Overall, it appears that multicollinearity is likely not an issue.

Table 1.2 provides results of the random effects logistic regression analyses. Models 1 through 3 provide results for the full sample, Models 4 through 6 present results for the subsample of low performing firms, and Models 7 through 9 are for the subsample of high performing firms. The first model in each series includes only the control variables, the second adds the independent and moderator variables, and the third is the fully specified model with all independent and control variables as well as the interaction terms. To mitigate potential multicollinearity in the models including interactions, I centered all continuous predictors and moderators prior to generating interaction terms. In reporting results, I refer primarily to Model 6, the fully specified model for firms with ROA below the industry average. In addition, in order to gauge effect sizes for statistically significant continuous effects, I calculated the marginal effects moving from one standard deviation below to one standard deviation above the average of the independent variable.

Hypotheses 1.1a and 1.1b respectively predicted that the strength of the education ties between an executive and the CEO and between the executive and the rest of the TMT would decrease the likelihood that the executive would leave the firm when it was underperforming. However, in Model 6 neither the coefficient for education tie strength with the CEO nor for education tie strength with the TMT was statistically significant. In addition, the coefficient for education tie strength with the CEO in Model 9, the full model for high performing firms was negative and statistically significant (-

0.20, $p < 0.05$). While this coefficient is in the expected direction, the fact that it is statistically significant in the sample of high performers but not low performers also runs contrary to expectations. Overall, the first set of hypotheses was not supported.

Hypotheses 1.2a and 1.2b respectively predicted that the strength of the employment ties between an executive and the CEO and between an executive and the rest of the team would decrease the likelihood of individual exit in underperforming firms. The coefficient for employment tie strength with the CEO in Model 6 is negative and statistically significant (-0.13, $p < 0.001$). Computing the marginal effects shows that, in the subsample of underperforming firms, increasing employment tie strength with the CEO from one standard deviation below to one standard deviation above the mean decreases the likelihood of exit by 52 percent. Similarly, the coefficient for employment tie strength with the rest of the TMT was negative and statistically significant (-0.09, $p < 0.01$). Here, increasing employment tie strength with rest of the TMT from one standard deviation below to one standard deviation above the mean decreases the likelihood the executive would exit by 36 percent. At the same time, the coefficients of these variables are also statistically significant and appear to have a greater effect in the high performing firms in Model 9. Specifically, in high performing firms, increasing employment tie strength with the CEO from one standard deviation below to one standard deviation above the mean decreases the likelihood of exit by 97 percent. Also in this sample, increasing employment tie strength with rest of the TMT from one standard deviation below to one standard deviation above the mean decreases the likelihood the

executive would exit by 78 percent. Thus, results support Hypotheses 1.2a and 1.2b but also provide evidence that these effects are not unique to underperforming firms.

Hypotheses 1.3a and 1.3b respectively predicted that shared political orientations between an executive and the CEO or the TMT would reduce individual executive exit in underperforming firms. The coefficient for shared political orientations with the TMT was not significant in either subsample. Thus Hypothesis 1.3b was not supported.

However, the coefficient for shared political orientations with the CEO was negative and statistically significant in both the sample of low performing firms ($-0.76, p < 0.001$) and the sample of high performing firms ($-1.29, p < 0.001$). For firms below the average industry-adjusted ROA, having shared political orientations with the CEO decreased the likelihood of exit by 69 percent. For firms above the average industry-adjusted ROA, having shared political orientations with the CEO decreased the likelihood of exit by 122 percent. Similar to employment ties, then, these results provide support for Hypothesis 1.3a but also indicate that the effects of shared political orientations are not unique to low performing firms.

The final set of hypotheses related to the moderating influence of relative pay on the relationships between tie strength and shared values and individual executive exit in underperforming firms. However, none of the coefficients for these interactions were significant. Thus, results do not support any of the moderating hypotheses.

2.5. DISCUSSION

This study drew on the social networks and social identification literatures to develop and test theory focused on how social ties and shared values between individual

executives and the CEO as well as the rest of the TMT influences their likelihood of turnover when the firm is underperforming. By examining these issues, this study provides important contributions to the literature on executive turnover. Below I describe a number of these contributions before shifting my attention to some potential areas for further developing this line of inquiry.

2.5.1. Contributions

Results of my analyses provide evidence that stronger connections to other members of the TMT may reduce a given executive's likelihood of leaving when the firm is underperforming. As such, I add insights to research on executive turnover by demonstrating that, while poor performance may increase overall levels of turnover, stronger ties to the group may reduce a given executive's likelihood of departure. Also, by examining turnover at the level of the individual rather than the firm level, this study provides insights into *who* leaves when the firm is underperforming, rather than simply whether, or at what rate executives leave. As such, this study offers a deeper understanding of how relational dynamics influence the composition of the TMT.

At the same time, results indicate that not all connections are equally as important in determining who leaves when the firm is underperforming. In particular, I consistently find that ties to the CEO have stronger effects than ties to the rest of the TMT. This finding confirms past work from the social identification literature that suggests that the referent matters in social comparisons (Ashforth & Mael, 1989). In particular, in the corporate context, it provides evidence for the focal role of the CEO in influencing turnover outcomes of other executives. Further, while results reveal that

employment ties and shared political orientations reduce turnover, they suggest that education ties do not. As such, results indicate that some ties may be more important than others in predicting who leaves the firm. Put another way, it is not just whom executives' know, but how they know them that determines executive departure.

In addition, I find that these effects are not unique to underperforming firms. In fact, in all cases, the ties that reduced turnover in these firms had even stronger effects in superior performing firms. This is an intriguing finding and one that holds important implications for research on the relationship between TMT composition and turnover. Indeed, a key motivation for this study was that past work using broad, surface-level characteristics as proxies for internal team dynamics has failed to find consistent results regarding their effect on turnover outcomes (e.g., Boeker & Wiltbank, 2005; Wagner et al., 1984; Wiersema & Bantel, 1993). By providing evidence that social ties and shared values influence executive turnover in both under- and superior-performing firms, contribute a better understanding of the compositional elements that most influence team dynamics and how they are manifest at the top of the firm. Also, the fact that I find these effects even after controlling for various measures of demographic and experience diversity illustrates that employment ties and shared political orientations represent something beyond what these surface-level characteristics represent. Based on the theory I develop, I specifically contribute back to work from organizational behavior (Harrison et al., 1998) by identifying compositional elements at the top of the firm that may be more reflective of deep-level similarities.

Finally, the study extends past work by examining these issues among a much larger sample than has been used in the past. Extant research has generally used samples of 100 firms or fewer and no study of which I am aware that has explored the relationship between TMT composition and turnover has included more than 650 executives (Boeker & Wiltbank, 2005; Jackson et al., 1991; Wagner et al., 1984; Wiersema & Bantel, 1993). By contrast, the sample for this study includes over 13,500 individual executives of more than 1,400 S&P 1500 firms. As such, it provides more generalizable findings regarding how compositional factors affect executive turnover.

2.5.2. Future Research

This study also provides a foundation for several potential areas of future research. One of these relates to integrating my findings with research on CEO succession to explore how changes in the CEO position affect outcomes for connected individuals. In particular, given the finding that ties to the CEO have a particularly important role in influencing turnover of other executives, future research could expand on this study by exploring the question: what happens to connected individuals when the CEO leaves? Indeed, one intriguing finding of this study is that the connections I examine have consistently stronger effects in superior- relative to underperforming firms. One possible explanation for this is that some executives have strong ties to the CEO, but when the CEO leaves, these ties would increase rather than decrease the likelihood of turnover. So, while I control for CEO turnover and also find evidence that CEOs typically remain in the firm even when it is underperforming, future work may

benefit from more directly exploring whether connected executives share the same fate as the CEO when he or she is dismissed.

Future work may also expand on this study by exploring these relationships in an entrepreneurial context. A close examination of past research on the effect of TMT composition on turnover outcomes reveals that at least some of the mixed findings in this work have come in studies of new ventures (e.g., Boeker & Wiltbank, 2005; Ucbasaran et al., 2003). For instance, Boeker and Wiltbank (2005) found that, for new ventures, high functional diversity mitigated rather than amplifying the relationship between performance and turnover. In a similar way, it may be worthwhile to study whether differences, rather than similarities, in the shared backgrounds and values of new venture teams reduce turnover when young firms are struggling. Further, it may be useful to explore how such ties affect the formation of new venture teams and how the composition of entrepreneurial teams changes over time. For example, are shared ties and values reflected in founder teams or, understanding the need for diverse thinking to successfully innovate, do entrepreneurs go outside of their networks when starting a new venture? Also, it may be important to examine how venture capitalists (VCs) play into these dynamics. Given VCs tendency to make changes in new venture teams (e.g., Fiet, Busenitz, Moesel, & Barney, 1997; Franke, Gruber, Harhoff, & Henkel, 2008), how might VCs' their preferences or network connections influence who is added, or removed, from the new venture team?

In addition, whether for entrepreneurial firms or more established firms, future work could build on the findings of this study to examine how deep-level compositional

characteristics affect other outcomes, such as firm performance or governance. For example, how do social ties, shared values, or other indicators of deep-level similarities affect performance outcomes such as profitability, growth, or innovation? Also, how might these factors affect governance policies such as compensation, especially once these factors are expanded to consider connections to corporate board? Overall, building on the theory and findings of this study would provide a wealth of opportunities for future research.

3. STUDY 2

The literature on interorganizational power highlights situations in which top organizational members vie for power and control to realize their own preferences (Bacharach & Lawler, 1980; Pfeffer, 1981b). Of particular interest to scholars researching in this area has been the process of CEO succession. This interest is reflected in circulation of power theory (Ocasio, 1994; Ocasio & Kim, 1999), which posits that “the CEO’s power is subject to circulation, with contesting political coalitions more likely to emerge during periods of poor performance and with increased obsolescence of the schemas and strategies used by the CEO” (Ocasio, 1994: 285). Overall, research from this perspective has demonstrated that CEOs are often dismissed for poor firm performance, but who is selected as the new CEO largely depends on social psychological and sociopolitical factors such as the existence of an heir apparent, the power and preferences of the board, and the strength of the relationships between the board and inside “contenders” (Cannella & Lubatkin, 1993; Shen & Cannella, 2002b, 2002a; Zajac & Westphal, 1996b).

Despite the value of this work, one question that still remains unanswered is how social psychological and sociopolitical factors affect turnover outcomes of other key personnel besides the CEO at the top of underperforming firms. This is a surprising oversight, given a consistent positive relationship between poor performance and turnover of non-CEO members of the top management team (TMT) as well as members of the board (Marcel & Cowen, 2014; Semadeni et al., 2008; Wagner et al., 1984). Indeed, while work on power contestation has focused narrowly on changes at the CEO

position, any of these organizational members may be held responsible for the strategic failings of the firm and are therefore at risk of losing their positions when things go poorly. Moreover, who leaves the firm is likely to have significant implications for the turnaround potential and future performance of the firm. In this regard, who is blamed and ultimately forced out of the firm for poor performance is likely driven by social and political processes among the firm's dominant coalition (e.g., Park & Westphal, 2013).

Building on these opportunities, this study seeks to integrate concepts from the power contestation literature with research on executive and director turnover by developing a framework describing turnover at the top of underperforming firms as a reflection of the social psychological and sociopolitical dynamics within the triad of the CEO, the TMT, and the board. I argue that the assignment of blame for poor performance is a sociopolitical process driven by relationships among these members, such that stronger links between any two groups will increase the likelihood of turnover of members of the opposing group. Specifically, drawing from the social network and social identity literatures, I develop theory to describe how education ties, employment ties, and shared political values influence the strength of the relationships between the CEO, TMT, and board and how these may influence who leaves the firm when it is underperforming. I also consider how structural power may moderate these effects by influencing any two groups' ability to force members of the third out of the firm. Finally, I take these arguments one step further to explore how tie-driven turnover affects subsequent firm performance for underperforming firms and the likelihood of turnaround.

Before doing so, I first provide a summary of the research examining the link between poor performance and executive and director turnover as a foundation for the theory I develop. In offering this brief review, I highlight findings pointing to a need for a deeper examination of the role of social psychological and sociopolitical processes in determining who leaves the firm when it is underperforming.

3.1. BACKGROUND

Extant research has demonstrated a consistent positive relationship between poor performance and turnover of the CEO (Finkelstein et al., 2009; Kesner & Sebor, 1994). Scholars have often taken an agency perspective to explain this relationship, arguing that it reflects a “settling-up” process (Fama, 1980) whereby the CEO is held responsible and ultimately dismissed for the strategic failings of the firm. At the same time, the magnitude of this relationship may depend on other contextual factors, particularly the nature of the sociopolitical environment. For example, Mobbs (2013) showed that powerful inside directors increase the likelihood that poor performance will lead to CEO dismissal by providing a credible replacement for the CEO. Conversely, CEOs may use various techniques to protect themselves from dismissal, reducing the strength of the relationship between poor performance and CEO turnover. For instance, using a network embeddedness framework, Flickinger, Wrage, Tuschke, and Bresser (2016) found that CEOs with more outside directorships relative to the board chair are less likely to be dismissed for poor performance. Similarly, other studies have found that CEOs often appoint directors from their own social networks (Bruynseels & Cardinaels, 2014;

Fracassi & Tate, 2012), which may increase these directors' loyalty to the CEO and reduce the likelihood of dismissal.

Moreover, the performance of the firm may affect turnover outcomes for other individuals besides the CEO. Studies have specifically shown that overall levels of TMT turnover increase when firms are performing poorly (Boone, Van Olffen, Van Witteloostuijn, & De Brabander, 2004; Wagner et al., 1984). Yet, as with CEOs, studies have found that there may be both a settling up component as well as a social component to this relationship. For instance, Walsh and Ellwood (1991) found that TMT turnover immediately following an acquisition was higher when the target firm had a history of poor past performance, providing evidence for settling up. At the same time, Boone et al. (2004) found that more dissimilar members of the TMT are more likely to exit when turnover occurs. Thus, the relationships among executives also come into play when determining turnover outcomes for non-CEO executives.

Studies have similarly demonstrated a negative relationship between poor performance and director exit (Boivie et al., 2012); although this work suggests that director exit is more likely to be voluntary or based on mutual consent than executive turnover (Boivie et al., 2012; Withers et al., 2012). In particular, because directors primarily serve on boards to enhance their status (Lorsch & MacIver, 1989), director exit following poor performance is more likely driven by a desire to mitigate reputational risk (Semadeni et al., 2008; Vafeas, 1999; Yermack, 2004) or from a reduced sense of fulfillment from holding the board position (Boivie et al., 2012; Lorsch & MacIver, 1989). Research also suggests that, even during times of crisis, directors may be less

likely to leave when they perceive the crisis is externally caused or when they identify strongly with the firm.

Altogether, while poor performance increases overall levels of turnover of both executives and directors, not every member of the organization will leave when the firm is underperforming. Further, whether or not any given member leaves is likely to depend on social or sociopolitical forces at work within the firm. In the following section, I extend this logic to explore how the relationships among the triad of the CEO, TMT, and board affect who leaves the firm when it is underperforming.

3.2. THEORY AND HYPOTHESES

Consideration of the CEO, TMT, and board in these situations stems from the “supra TMT” construct (Finkelstein & Hambrick, 1996; Finkelstein et al., 2009), which defines the dominant coalition of the firm as comprising both top executives as well as directors. Although this concept has been debated based on potential divergent interests between executives and the board and their disparate effects on strategic outcomes (Carpenter, Geletkanycz, & Sanders, 2004), scholarship has been clear that boards frequently interact with members of the top executive team and that all members of the supra-TMT are involved in power contests (e.g., Ocasio, 1994; Westphal & Zajac, 1995; Zajac & Westphal, 1996a). Still, the question remains, what factors are most likely to affect the relationships among the members of this triad and how do those ultimately affect who leaves the firm when it is underperforming?

In order to examine relational dynamics at the top of the firm, strategy researchers have typically drawn on theory from organizational demography (Hambrick

& Mason, 1984; Pfeffer, 1983), arguing that diversity along demographic or broad experiential characteristics is likely to affect executive turnover by influencing the level of integration, conflict, and cohesion among executives. Yet, findings across studies have been mixed with respect to both the direction and significance of these factors (e.g., Boeker & Wiltbank, 2005; Jackson et al., 1991; Wagner et al., 1984; Wiersema & Bantel, 1993).

Meanwhile, research at lower levels of the firm has distinguished between surface-level characteristics, such as the demographic proxies examined in the strategy literature, and deep-level characteristics such as shared experiences, beliefs, and values (Harrison et al., 1998). This work has found that deep-level similarities are best developed through meaningful interactions and that they have a stronger and more enduring effect on individual relationships (Harrison et al., 1998; Milliken & Martins, 1996). Within a corporate elite context, Jackson et al. (1991) hinted at some characteristics that may be reflective of deep-level similarities, including alma mater, military experience, and career experience. I build on this work to examine how social ties and shared values among the triad of the CEO, TMT, and board affect turnover outcomes for these organizational members. Specifically, drawing from the literatures on social networks and social identification, I explore how elite education and employment ties, which may provide a basis for developing deep-level similarities, as well as shared political orientations, as an indicator of individuals' beliefs and values, affect turnover outcomes for these organizational members. In each case, I describe the relevance of the factor to the corporate elite before outlining how it may affect the strength of the

relationships among top organizational members and turnover outcomes in underperforming firms.

3.2.1. Elite Education Tie Strength

Research from a sociological perspective often refers to the corporate elite as a close network of powerful individuals reflecting an oligarchy atop the world's largest organizations (Davis et al., 2003; Mills, 1956; Nguyen, 2012; Useem & Karabel, 1986; Wiersema & Bird, 1993). In describing this group, Nguyen (2012: 237) observed, "In many countries, top executives enjoy an elite education, share membership in prestigious social and professional associations, and sit on the boards of large firms. They form a tight-knit circle." Reflected in this description is the fact that ties to elite universities often underlie the "small-world" of the corporate elite. Indeed, studies have found that elite educations often influence advancement to top levels of management as well as appointments to corporate boards (Useem & Karabel, 1986; Westphal & Stern, 2006). At the same time, not all individuals who rise to the ranks of the corporate elite have elite educations. Thus, while these individuals tend to have many similarities, elite affiliations may also be a distinguishing factor even among the corporate elite and a form of network tie that leads to cliques or factions within this group (Wiersema & Bird, 1993).

The identification literature provides further evidence that elite education ties lead to divisions among this group of individuals. From this perspective, individuals often seek affiliations with prestigious groups in order to enhance their self-image (Mael, 1988). As a result, executives and directors with elite credentials are likely to define themselves and others based on those affiliations and will identify more strongly with

others who share elite credentials (Aries & Seider, 2007; Mael, 1988). Further, given most elite schools demonstrate a bias in admitting individuals from wealthy, well-connected families (Palmer & Barber, 2001), elite education ties may reflect common social class positions and cultural similarities among those who share them (Brown & Tannock, 2009; Palmer & Barber, 2001; Wiersema & Bird, 1993). In turn, these individuals are more likely to have common experiences and world-views (Aries & Seider, 2007; Ostrove & Cole, 2003), which reflect the deep-level similarities examined in the organizational behavior literature, and may band together when situations arise that make their elite identities more salient (Ashforth & Johnson, 2001). Poor performance at the firm is one such context, since it often stimulates the rise of contesting political coalitions referenced by Ocasio (1994) and causes executives and directors to justify or redirect blame for the firm's strategic failings (e.g., Barton & Mercer, 2005; Boeker, 1992; Clapham & Schwenk, 1991).

Moreover, these effects are likely to be stronger for those who attended the same elite university, especially at the same time. This is because alumni from the same alma mater often have a shared language and a greater sense of shared experiences, increasing identification between them (Mael & Ashforth, 1992; Wiersema & Bird, 1993). In addition, having concurrently attended the same alma mater may indicate that the current working relationship was formed based on a previous friendship tie, which would further increase trust, cohesion, and shared identity between individuals (e.g., Chua et al., 2008; McGrath & Krackhardt, 2003; Rydgren et al., 2013).

Extending this logic, elite education ties may be a particularly strong determinant of the outcome of power contests within underperforming firms. In particular, when the firm is performing poorly, those with shared elite education backgrounds are likely to close ranks and protect each other from dismissal. Past work has provided some initial support for this idea, finding that CEOs with ties to the board through elite educational affiliations are less likely to be dismissed for poor performance (Nguyen, 2012). Similarly, I argue that stronger elite education ties between the CEO and the TMT, or between the TMT and the board, will affect turnover outcomes for these members when the firm is underperforming.

Beyond preventing turnover, though, I suggest that stronger shared ties between any two members of the CEO-TMT-board triad will increase the likelihood that members of the less-connected group will leave the underperforming firm. This is because, in addition to increasing identification and integration between in-group members, these social comparisons will also naturally lead to discrimination against out-group members (Ashforth & Mael, 1989; Hogg & Turner, 1985; Tajfel, 1982; Turner, 1984). At the top of the firm, such discrimination is likely to manifest as linked members seek to shift the blame to members of the opposing group. Given past work demonstrating that status affects who is blamed for poor performance (Park & Westphal, 2013), those with elite education backgrounds are more likely to be successful in deflecting blame to those without elite backgrounds. Thus, elite education ties may increase the ability of linked members to be successful in deflecting blame away from themselves and pushing members of the opposing group out of the firm.

Additionally, these effects may be the result of either direct power plays or indirect social discrimination. For example, stronger elite ties between the non-CEO executives and members of the board may encourage power plays against the CEO in which the TMT and board join together to force the CEO out of the firm and take over his or her position (e.g., Mobbs, 2013). Similarly, stronger elite ties between the CEO and board may encourage scapegoating of members of the TMT in which these members are blamed for poor performance and dismissed in order to protect the CEO from dismissal (e.g., Boeker, 1992). Alternatively, turnover of any member of the CEO-TMT-board triad may be the result of social discrimination, since stronger ties between the opposing members would reduce their sense of integration or cohesion and increase conflict with others at the top of the firm, encouraging voluntary departure or departure based on mutual consent (e.g., Friedkin, 2004; George & Bettenhausen, 1990).

Altogether, I posit:

Hypothesis 2.1: Stronger elite education ties between (a) the TMT and the board, (b) the CEO and the board, or (c) the CEO and the TMT, respectively, will increase the likelihood that CEO, members of the TMT, or members of the board leave the firm when it is underperforming.

3.2.2. Employment Tie Strength

Employment backgrounds are another form of social tie that often underlie the small-world effect of the corporate elite. As observed by Mills (1956: 294), the corporate elite “often seem to know one another, seem quite naturally to work together, and share many organizations in common.” As with elite education credentials, however, not all individuals at the top of a given firm will have ties to the same organizations.

Employment ties therefore represent another salient grouping characteristic that is likely

to affect the formation of separate factions among top organizational members when the firm is underperforming.

Individuals with ties to common prior employers are likely to band together when confronted by poor performance for many of the same reasons as those with common ties to elite universities. In particular, having worked for the same prior employer increases individuals' sense deep-level similarities in terms of shared language, vision, culture, and narratives (Beckman, 2006; Johannisson, 1987; Nahapiet & Ghoshal, 1998), which subsequently encourages cohesion and identification among them. At the same time, shared narratives need not be positive (as is likely for elite education ties) to lead to these effects. This is because members of the same social group identify with each other based on both the successes and failures of the group (Ashforth & Mael, 1989; Foote, 1951; Tolman, 1943). Thus, even shared negative experiences or failures at a previous employer would enhance identification and cohesion among those with common employment backgrounds. Also, similar to education ties, these effects would be more pronounced for those who worked for a common employer during the same time period. Again, this is because such ties would increase the likelihood of direct shared experiences or may reflect a previous friendship tie, both of which would enhance trust, mutual respect, and shared identity between individuals (e.g., Chua et al., 2008; McGrath & Krackhardt, 2003; Rydgren et al., 2013).

Following the arguments presented above, then, the strength of the employment ties between any two members of the CEO-TMT-board triad is likely to affect the likelihood of turnover for members of the opposing group. That is, more connected

groups are likely to scapegoat the less connected group by attempting to shift blame for poor performance onto them. This idea follows previous work that has found that powerful CEOs are often successful in displacing blame for poor performance onto their weaker subordinates, who are then replaced while the CEO avoids dismissal (Boeker, 1992). Extending this idea, stronger factions, whether comprising the CEO and board, TMT and board, or CEO and TMT, may be better able to shift blame onto members of the opposing group and either directly (i.e., through power plays) or indirectly (i.e., through social discrimination) push them out of the firm. I therefore posit:

Hypothesis 2.2: Stronger employment ties between (a) the TMT and the board, (b) the CEO and the board, or (c) the CEO and the TMT, respectively, will increase the likelihood that CEO, members of the TMT, or members of the board leave the firm when it is underperforming.

3.2.3. Shared Political Orientations

A factor that may be even more directly linked to deep-level similarities among top organizational members is commonality in their political orientations. Research from both psychology and the political sciences suggests that individuals' political orientations are one of the strongest indicators of their core values, belief systems, and cognitions (Goren, 2005; Jost, Federico, & Napier, 2009; Jost, Glaser, Kruglanski, & Sulloway, 2003). Also, similar to social ties discussed previously, political ideologies are a prominent feature of the corporate elite. Indeed, there is mounting evidence across strategy and related research that executives' and directors' political orientations along the liberal-conservative spectrum are reflected in corporate policies and governance decisions, such as firm capital structure, risk-taking, and executive compensation (e.g., Chin et al., 2013; Christensen et al., 2015; Gupta & Wowak, 2017; Hutton, Jiang, &

Kumar, 2014, 2015). Yet it is also clear that variance exists in the political orientations of executives and directors within firms. Consequently, individuals' political orientations are likely to be another salient factor contributing to the rise of competing factions within underperforming firms.

This argument is supported by a large body of empirical evidence in the literatures on both social and political identity (Deaux et al., 1995; Duck et al., 1995; Huddy, 2001; Monroe et al., 2000). This work suggests that, because political affiliations are collective in nature, shared political affiliations encourage psychological grouping and increased identification between party members (Deaux et al., 1995). In turn, shared political identities increase both intragroup cohesion and inter-group conflict (see Huddy, 2001; Monroe et al., 2000). Further, affiliates of major political parties often demonstrate self-serving biases, tending to psychologically discriminate in favor of their own party and against the opposing party (e.g., Duck et al., 1998; Fowler & Kam, 2007; Huddy, 2001), even when they perceive differences between their personal positions and those of the political party (e.g., Duck et al., 1995). Again, however, the strength of these tendencies also depends on the salience of one's political identity (Unsworth & Fielding, 2014), which increases in contexts of conflict or tension between groups.

The effect of shared political orientations are thus likely to be the same here as for the social ties examined previously. As tension mounts at the top of underperforming firms, individuals with common political orientations are likely to close ranks and shift blame to those orientation in the opposite direction. Under these circumstances, the two members of the CEO-TMT-board triad sharing the strongest, or more dominant political

position are likely to be more capable of successfully deflecting blame, directly forcing members of the least-connected group out of the firm. Alternatively, differences between the more connected groups and the less connected groups may create an undesirable work environment for those with opposing views by reducing integration and increases conflict between them. Similar to social ties, then, turnover of members of the opposing group may be either direct or indirect. Thus, I posit:

Hypothesis 2.3: Greater shared political orientations between (a) the TMT and the board, (b) the CEO and the board, or (c) the CEO and the TMT, respectively, will increase the likelihood that CEO, members of the TMT, or members of the board leave the firm when it is underperforming.

3.2.4. Moderating Role of Formal Power

The arguments I have advanced to this point have related to the role of relational power among the triad of the CEO, TMT, and board in determining the outcome of contests for power in underperforming firms. This focus follows the long history of work on power contestation, which has highlighted the critical role of social and sociopolitical factors in these situations (e.g., Cannella & Lubatkin, 1993; Nguyen, 2012; Zajac & Westphal, 1996b). At the same time, I also acknowledge that the effect of relational power on the assignment of blame and subsequent turnover of any given member of the CEO-TMT-board triad is likely to be sensitive to their respective level of formal power. To echo Zajac and Westphal (1996b: 70), while social psychological and sociopolitical factors may determine different factions' preferences in power contest situations, "the degree to which these preferences are realized may be a function of the balance of [formal] power" between these factions. In the present context, I argue that more

powerful organizational members will be less likely to be pushed out of the firm, even if they are not well connected to other top organizational members.

I refer to formal power as the various aspects of formal or structural control over firm outcomes that enable executives and directors to “exert their will” (e.g., hierarchical authority, ownership, expertise, etc.; see Finkelstein, 1992). As previously mentioned, extant work has already provided evidence that powerful CEOs are better able to protect themselves from dismissal for poor performance than their less powerful counterparts (Boeker, 1992; Flickinger et al., 2016). But these effects may also extend to others at the top of the organization, since greater power will increase any organizational members’ ability to influence outcomes for themselves or others (e.g., Finkelstein & Hambrick, 1989; Pollock, Fischer, & Wade, 2002). Specifically, greater formal power of any given member of the CEO-TMT-board triad will make it more difficult for the other members to redirect blame and directly force them out of the firm through power plays.

In addition, greater structural power will prevent two members of the triad from indirectly pushing the third out of the firm by increasing their level of identification with their role. Research suggests that members of the corporate elite are highly ambitious and often seek for power (e.g., Harrell & Alpert, 1979; Olujide & Badmus, 1998). Thus, when their role provides them with a sense of power or control, they are more likely to identify with their role and avoid being separated from it (Harrell & Alpert, 1979; Lorsch & MacIver, 1989). Even when facing social discrimination, then, organizational members in positions of power may be less likely to leave the firm. This argument follows the identification literature, which suggests that various forms of identification

may frequently interact when determining behavior (Sluss & Ashforth, 2007, 2008). That is, even when facing relatively lower levels of identification or integration with other organizational groups, members of powerful groups will be less likely to leave the firm because they will identify more strongly with their position and exert effort to retain it. Overall, I posit:

Hypothesis 2.4: Greater power of the (a) CEO, (b) TMT, or (c) board will weaken the positive relationship between turnover and the strength of the elite education ties respectively between the TMT and board, CEO and board, or CEO and TMT.

Hypothesis 2.5: Greater power of the (a) CEO, (b) TMT, or (c) board will weaken the positive relationship between turnover and the strength of the employment ties respectively between the TMT and board, CEO and board, or CEO and TMT.

Hypothesis 2.6: Greater power of the (a) CEO, (b) TMT, or (c) board will weaken the positive relationship between turnover and shared political orientations respectively between the TMT and board, CEO and board, or CEO and TMT.

3.2.5. Tie-driven Turnover and Subsequent Performance

Having outlined a framework for understanding who leaves the firm when it is underperforming, the next question becomes: how do these turnover outcomes affect the firm? A common view in the management literature is that turnover following poor performance reflects an adaptation or turnaround strategy intended to help struggling firms improve their situation (e.g., Arogyaswamy, Barker, & Yasaiardekani, 1995; Barker & Duhaime, 1997; Bibeault, 1982; Kesner & Dalton, 1994). Reflecting this view, Barker and Duhaime (1997: 20) observed that “recovery from decline is often facilitated by replacing the CEO and other top executives”. According to Bibeault (1982), two possible reasons for this are that current executives caused the decline or that they are

incapable of handling the problem(s) leading to decline. Similarly, some scholars have argued that board turnover following governance failures may reflect punishment of ineffective directors (e.g., Arthaud-Day et al., 2006; Marcel & Cowen, 2014), such that turnover should facilitate recovery.

At the same time, others have argued that turnover following poor performance may often be more symbolic than substantive (Gangloff, Connelly, & Shook, 2016; Kesner & Dalton, 1994; Khanna & Poulsen, 1995; Pfeffer, 1981a; Rowe, Cannella, Rankin, & Gorman, 2005) and may therefore not affect the change needed to improve the situation. Indeed, it is often difficult to determine whether those leaving the firm are truly the “villains” or are simply scapegoats arbitrarily dismissed to appease shareholders (Khanna & Poulsen, 1995). Moreover, turnover may sometimes lead to further decline. As Kesner and Dalton (1994: 705) observe, “some turnover is necessary to effect change in the organization, but...too much change can be dysfunctional”. This is because, even in turnaround situations, turnover may lead to excessive loss of firm-specific human capital necessary to effectively address the issues in the firm (Le, Kroll, & Walters, 2013; Shen & Cannella, 2002a).

I argue that who leaves the firm and who remains may be an important predictor of the turnaround prospects and subsequent performance of the firm. As suggested in the preceding sections, when two members of the CEO-TMT-board triad are successful in pushing out members of the opposing group, it is the more dissimilar members who are likely to leave and the remaining personnel will be more homogenous in terms of their backgrounds and values. In turn, tie-driven turnover may lead to a loss of thought

diversity (Fernandez, 2007) that could be necessary to effect change and may therefore prevent turnaround, as those with opposing views and perhaps the greatest likelihood of encouraging change are pushed out of the firm.

Further, presuming there is “strength in numbers” at the top of the firm, so that more connected individuals would have a greater overall ability to influence the firm, it stands to reason that these individuals would be more culpable for the firm’s present condition. When these organizational members are also successful in deflecting blame and retaining their positions, this will lead to the retention of ineffective managers and directors (e.g., Nguyen, 2012). Overall, rather than poor performance encouraging dismissal of those who caused or are incapable of addressing the problem(s) in the firm (Bibeault, 1982), this situation may result in the retention of those very individuals at the expense of others who may be most capable of encouraging change and improving the situation. As such, I argue that tie-driven turnover will lead to a downward spiral scenario (Hambrick & D'Aveni, 1988) in which the retention of ineffective managers leads to worsening performance. Formally, I posit:

Hypothesis 2.7: In underperforming firms, tie-driven turnover of (a) the CEO, (b) members of the TMT, or (c) members of the board, will be negatively related to the subsequent change in firm performance.

3.3. METHODS

3.3.1. Sample and Data Collection

The sample for this study consists of the executive teams and corporate boards of 13,294 firms that were included on Standard & Poor’s (S&P) 1500 at any point between 2000 and 2014. Data on CEOs, TMTs, and boards were drawn primarily from

Compustat Executive Compensation (Execucomp), BoardEx, and Institutional Shareholder Services (ISS) databases. To assess individuals' political orientations, I used their political campaign contributions, taken from the Center for Responsive Politics (CRP; opensecrets.org). Other firm and industry data were drawn from Compustat.

Besides the political data from CRP, all data used for the study were taken from databases included on the list of public use datasets approved by Texas A&M University's Institutional Review Board (IRB). In addition, CRP is another public use dataset that contains only publically available data that are identifiable without expectation of privacy.

3.3.2. Dependent Variables

Turnover models. The dependent variables for the first group of hypotheses include measures of turnover for the CEO, TMT, and board. Given my interest in the likelihood of exit rather than the rate of exit for any member of the triad, I operationalized each turnover variable dichotomously. Specifically, *CEO turnover* is coded 1 if the CEO left the firm within a year of the year independent and control variables are measured. *TMT turnover* and *board turnover* are coded 1 if one or more members of the TMT or board, respectively, left the firm within a year of the year independent and control variables were measured. I assessed turnover within a year in order to grant adequate time for the theorized political dynamics to manifest following underperformance without introducing error from changes in the composition of the TMT or board between the onset of underperformance and the exit period. In assessing individual turnover of the CEO and of executives (i.e., as a basis for measuring group

turnover), I also followed the same approach outlined in the first study to ensure observed exits were not due to dropping out of the highest paid group of executives in Execucomp. That is, the CEO or other executives were only counted as having exited if they left the firm and did not reappear in the firm within three years of the initial observed exit.

For robustness, I also measured exit within two and three years of the year in which independent and control variables were measured. Results based on the two-year measure were identical to those presented below. However, several of the supported hypotheses lost statistical significance when using the three-year window. Similar to the first study, these findings validate the concern that using an excessive lag may introduce error from changes in the composition of the TMT and/or board between the onset of poor performance and the exit period. That is, the composition of the TMT and board changes over time and who is in the firm immediately preceding a given exit period is much more likely to affect turnover during that period than who was in the firm three years prior. In addition, it is likely that power struggles brought on by underperformance would have already played out before three years following the poor performance. Thus, retaining the one-year window seems appropriate.

Performance models. For the second group of hypotheses predicting performance, the dependent variable is the change in firm performance following tie-driven exit. I used return on assets (ROA) to gauge firm performance in each year for every firm in the sample. I then measured *performance change* as the change in ROA from the year in which turnover was assessed and the following year.

3.3.3. Independent and Moderator Variables

Turnover models. For my hypotheses predicting exit, independent variables include measures of elite education tie strength, employment tie strength, and shared political orientations. I used a similar multi-phased approach to assess each variable between the CEO and board, CEO and TMT, and TMT and board. In each case, I first identified ties between individuals before aggregating to the group level.

I assessed elite education tie strength as the summed standard scores of the size-weighted number of ties shared between each dyad, based on three indicators of elite education ties: (a) shared elite affiliations, (b) common elite alma mater, and (c) contemporaneous attendance at a common alma mater.⁸ I used the full education histories of every individual executive and director in the sample to create this set of variables. To identify elite universities, I used the list compiled by Finkelstein (1992), which includes all members of the Ivy League as well as top rated undergraduate programs, M.B.A. programs, law programs, liberal arts colleges, and the U.S. Military and Naval academies. For each firm-year, I then matched individuals across each group (i.e., CEO to individual directors, CEO to individual TMT members, and individual directors to individual TMT members) on the three indicators. Specifically, to assess whether a given pair of individuals had shared elite affiliations, I created a dummy variable coded 1 if they both received at least one degree from an elite institution (e.g.,

⁸ As with the first study, I also tested models separately including the indicator variables for education as well as employment ties described here and in the next section. While some of these indicators did have significant effects, most did not, and those that did were not consistent across the different dyads (i.e., CEO-TMT, CEO-board, and TMT-board). Overall, these results seem to suggest that, when exploring how social ties affect turnover at the top of the firm, it is important to consider the strength of a given type of tie more than simply the existence of a tie.

Person A received a degree from Harvard, Person B received a degree from Yale). For individuals with shared elite affiliations, I then assessed whether they had a common elite alma mater by generating a dummy variable coded 1 if the individuals both received a degree from the same elite institution, regardless of the level of the degree (e.g., Person A and Person B both received degrees from Harvard = 1). Finally, for those with a common elite alma mater, I determined whether they had contemporaneous attendance at that alma mater by comparing the years their degrees were granted and generating a dummy variable coded 1 if they received the same type of degree during the same period (e.g., Person A received a bachelor's degree from Yale in 1978, Person B received a bachelor's degree from Yale in 1979 = 1). For this indicator, I evaluated whether the individuals attended the university at the same time based on the assumed time to complete each type of degree (i.e., most masters degrees were assumed to be two-year programs, bachelor's degrees were assumed to be four-year programs, etc.).

For each indicator, I then created count variables reflecting the number of each type of tie that existed between each dyad and then weighted these by the number of individuals included in the comparison.⁹ For the CEO-board dyad, if the CEO had a degree from an elite institution, I generated separate count variables for the number of directors who (a) also had a degree from an elite institution, (b) had a degree from the same elite institution as the CEO, and (c) had contemporaneous attendance with the CEO at the same elite institution. I then divided each of these values by the number of

⁹ Similar to the first study, I also tested models using the sum standard scores of the *simple counts* of education and employment ties for each dyad, rather than size-weighted counts. Results were unchanged when operationalizing tie strength in this way. Here again, I decided to use the size-weighted scores because this allowed for better comparisons across firms in interpreting effects.

directors on the board plus one (the CEO) in order to generate a size-weighted count that would allow for better comparisons across firms. For instance, a CEO who is connected to two out of five outside directors would be in a stronger position than one who is connected to two out of nine outside directors. Finally, I calculated *elite education tie strength (CEO to board)* as the summed standard score of these size-weighted count variables. By summing these variables in this way, this measure not only allows me to assess the (size-weighted) number of ties that exist between the CEO and the board, but also provides an indication of the strength of those ties. I followed the same procedure to calculate *elite education tie strength (CEO to TMT)* as well as *elite education tie strength (TMT to board)*, weighting each variable based on the number of individuals included across the respective dyad.

Like education tie strength, I assessed employment tie strength as the summed standard scores of the size-weighted number of ties shared between each dyad, based on two indicators of elite education ties: (a) common prior employer and (b) contemporaneous employment at a common prior employer. To create this set of variables, I used the full employment histories on all of the executives and directors in the sample, including the name of every company for which they had worked prior to the current company as well as their start and end dates. I then matched these affiliations following the same procedure used for elite education ties. Thus, *employment tie strength (CEO to board)* is the sum of standard scores of the size-weighted counts of directors with one or more common prior employers with the CEO and directors with contemporaneous employment at one or more common prior employers. Similarly,

employment tie strength (CEO to TMT) and *employment tie strength (TMT to board)* reflect the size-weighted counts of pairs across the respective dyads with one or more common prior employer or contemporaneous employment at a common prior employer.

I followed a similar procedure to evaluate shared political orientations across dyads. But before comparing political orientations, I first assessed political orientations for all executives and directors in the sample based on their individual political contributions. To do so, I followed previous work (e.g., Chin et al., 2013; Christensen et al., 2015; Gupta & Wowak, 2017) and measured individuals' political orientations as the amount of money provided to republican candidates minus the amount provided to democratic candidates, divided by the total money provided to both democratic and republican candidates. This variable fell on a range from -1 to 1, where -1 indicates that all contributions were made to democratic candidates and 1 indicates that all contributions were made to republican candidates. Executives with no contributions to either party were assumed to be moderate and given a value of 0. After creating this measure, I then created a categorical variable indicating whether the executive had political orientations towards the Democratic Party (i.e., political orientation less than 0), was a moderate (i.e., political orientation equal to 0), or had political orientations towards the Republican Party (i.e., political orientation greater than 0).

I then used this variable for comparisons across each dyad. That is, for each dyad, I generated count variables reflecting the number of individuals with shared political orientations. As with the other independent variables, I also weighted these by the number of individuals in the comparison groups. Thus, *shared political orientations*

(*CEO to board*) is the number of outside directors with the same political orientations as the CEO, divided by the number of outside directors on the board plus one (for the CEO). Similarly, *shared political orientations (CEO the TMT)* and *shared political orientations (TMT to board)* reflect the size-weighted number of pairs with across each respective dyad with shared political orientations.

Performance models. Independent variables for the performance-related hypotheses include measures of tie-driven exit for the CEO, the TMT, and the board. These variables were measured as dichotomous variables coded 1 if both of the following criteria were met: (a) there was turnover within the focal group and (b) the opposing dyad had the strongest of the three links. Thus, calculating this variable required that I evaluate the relative strength of the ties between the CEO and board, CEO and TMT, and TMT and board. To do this, I compared the strength of each of the three forms of ties—elite education, employment, and political—and created a variable to indicate which dyad had the dominant tie in each category. I then created separate dummy variables for each dyad taking the value 1 if the given dyad had the dominant tie in two or more of the three categories. These variables were then used as a proxy for criteria (b), above. Then, in order to satisfy criteria (a), I only examined the effects of this variable using the subsamples of panels in which there was turnover in the focal group.

Thus, *tie-driven CEO exit* is a dichotomous variable taking the value 1 if the TMT and the board had dominant ties in two or more of the three categories in a given year and this effect was tested in the subsample of panels in which the CEO exited

within a year of the year ties were assessed. Likewise, *tie-driven TMT exit* and tie-driven board exit are dichotomous variables taking the value 1 if the CEO and the board or CEO and the TMT, respectively, had the dominant tie in a given year and these effects were tested on the subsamples of panels in which one or more members of the TMT or board exited in that same year.

Moderators. Moderators for this study include measures of CEO, TMT, and board power. Following past work, *CEO power* was measured as the sum of standard scores of four common indicators of power: (a) whether the CEO was also the chair of the board, (b) his or her number of official titles, (c) the percentage of equity ownership by the CEO in the firm in a given year, and (d) the number of certifications he or she held (e.g., CPA, CFA, etc.) (e.g., Dunn, 2004; Pollock et al., 2002; Zhu & Chen, 2015). For consistency, *TMT power* and *board power* were measured using these same indicators at the individual level and then aggregated to the group level by taking the mean score for each executive on the TMT or each director on the board, respectively.

3.3.4. Control Variables

I also include a number of controls at different levels of analysis across the various models tested. For models predicting CEO turnover and performance following CEO turnover, I control for several individual-level characteristics that may be related to the likelihood that the CEO would leave the firm. These include the age and gender of the CEO as well as the CEO's tenure. In addition, I control for board independence using the proportion of outsiders on the board, since this ratio may affect the likelihood that

the CEO would be dismissed for poor firm performance (Kaplan & Minton, 2012; Laux, 2008).

For models predicting TMT turnover or performance following TMT turnover, I control for various TMT-level measures of demographic and experience diversity that have been widely examined in past work on executive turnover (Jackson et al., 1991; Wagner et al., 1984; Wiersema & Bird, 1993). I assessed demographic diversity along three dimensions: age, gender, and ethnicity. Gender and ethnic diversity were measured using Blau's (1977) heterogeneity index $(1 - \sum p_i^2)$, where p_i equals the proportion of TMT members in each i^{th} category. Age diversity was assessed using the coefficient of variation on age, calculated for each firm-year as the standard deviation of the age of all TMT members divided by the average age of all TMT members. I assessed experience diversity along four separate dimensions: education level, firm tenure, tenure in the focal firm's industry, and industry experience diversity (i.e., the number of industries in which each executive had experience). As with the demographic variables, I used Blau's (1977) index to calculate education level diversity. All other experience diversity measures were calculated using the coefficient of variation.

I control for the same demographic and experience measures used in the TMT models, measured at the board level, in models predicting board turnover or performance following board turnover. That is, I control for age, gender, and ethnic diversity of the board using the same methods described above. Likewise, I control for experience diversity of the board along education level, board tenure, tenure in the focal firm's industry, and industry experience.

Across all models, I also control for various firm and industry-level factors that may be related to exit by top organizational members. These include the same variables that were used as controls in the first study. Specifically, at the firm level, I control for measures of firm size, firm performance, financial restatements, and litigation against the firm using the same methods described in the first study. In addition, I control for turnover of the opposing members across each model. Also, given previous work on the relationship between successor type and subsequent performance (Shen & Cannella, 2002a), I ran separate models specifically controlling for inside versus outside CEO succession. Results from these models were identical to those presented below and, in fact, the succession variables were not statistically significant. Thus, for parsimony, I do not include them in the reported results. At the industry level, I control for industry concentration, dynamism, and munificence, also measured the same way here as described in the first study.

3.3.5. Analysis Strategy

I used random effects logistic regression to examine turnover separately for the CEO, TMT, and board. To account for the full range of ties within each firm, I included tie strength for every dyad in all turnover models. Thus, while I focus only on the tie strength between a single dyad in interpreting results, I also control for the tie strength of the opposing dyads. To examine simultaneous exit, I control for exit of the two non-focal members across all models. Also, similar to the first study, I split the sample on one year lagged, industry-adjusted ROA to examine the effects in poor performing relative to superior performing firms. The reasons for using this measure of performance

are the same here as for the first study. In all analyses, I used robust standard errors, clustered on firm.

Although the Hausman test for each set of models was statistically significant (CEO turnover models: $\chi^2=510.94$, $p<0.001$; TMT turnover models: $\chi^2=260.80$, $p<0.001$; board turnover models: $\chi^2=322.21$, $p<0.001$), I opted to use random effects rather than fixed effects models to avoid creating sampling bias. That is, fixed effects models require variance in the dependent variable, but not every panel in the data experienced executive or director departure. Thus, applying fixed effects would have removed all panels without a departure prior to performing the analysis, leading to possible sampling bias by restricting the analysis to only firms that experienced a departure of any given member. Random effects are also desirable in this case because they provide more efficient estimates of variables with little within-subject variability over time (Allison, 2009), which is the case for the independent variables within firms for this study.¹⁰

To test the effects of tie-driven exit on subsequent performance, I estimated random effects models predicting firm performance following tie-driven exit of each member. As mentioned previously, for each type of turnover, I examined the effect of a dominant tie of the opposing dyad only in panels in which turnover occurred within the focal group. This allowed me to compare subsequent performance across firms that had experienced turnover of the top member of interest and avoid comparisons against firms

¹⁰ As robustness checks, I also ran fixed effects models and models using discrete event history analysis, similar to the first study. Again, while there was variance in the significance level of the independent variables across these models, a consistent pattern did emerge. Here, effects for political ties and ties to the board (i.e. for the CEO or TMT) were mostly consistent across models, but there was much less consistency in the other types of ties.

where turnover did not occur in the focal group. Also, in each case, the Hausman test was not statistically significant, suggesting that random effects models provided more efficient estimates and were the preferred estimation method.

3.4. RESULTS

Table 2.1 provides descriptive statistics and correlations for the variables used in the study. Turnover of the CEO, TMT, and board respectively occurs in 11 percent, 63 percent, and 66 percent of firm-years in the sample. The average age of a CEO in the sample is 56 and a female is the CEO in only about 2 percent of firm-years. The average CEO in the sample has been in the firm for 15 years. Also, on average, 83 percent of the board is comprised of outsiders. In general, TMTs and boards appear to be demographically similar, given relatively small measures of demographic diversity and small standard deviations on these measures across the sample. However, TMTs and boards in the sample appear to have greater diversity and variance along experiential characteristics, especially company and industry tenure. In addition, there appear to be no abnormally high correlations and collinearity diagnostics are all within reasonable levels. Specifically, the mean level for variance inflation factors (VIF) across all models is 1.18 and no VIF exceeds 2.0, indicating the multicollinearity is likely not an issue.

3.4.1. Turnover Models

CEO turnover. Results of models predicting CEO turnover are provided in Table 2.2. The table provides estimates for the full sample of firms (Models 1 to 3) as well as for the subsamples of underperforming (Models 4 to 6) and superior performing firms (Models 7 to 9). For each group of firms, the first model includes only the controls, the

second adds the independent variables, and the final model is the fully specified model including the interactions terms. I interpret effect sizes for statistically significant coefficients by calculating the marginal effects moving from one standard deviation below to one standard deviation above the mean of the independent variable.

Hypotheses 2.1a, 2.2a, and 2.3a respectively predict that the strength of the elite education ties, employment ties, and shared political orientations between the TMT and board will increase the likelihood that the CEO exits the firm when it is underperforming. The coefficient for elite education tie strength between the TMT and the board is positive and marginally statistically significant in Model 6 (0.05, $p < 0.10$). This coefficient indicates that moving from one standard deviation below to one standard deviation above the mean increases the likelihood of CEO exit by 24 percent. Moreover, the corresponding coefficient in Model 9 for superior performing firms is not statistically significant, supporting the notion that these effects are most likely in underperforming firms. Overall, these results provide marginal support for Hypothesis 2.1a.

Similarly, the coefficient for employment tie strength between the TMT and board is positive and marginally statistically significant in Model 6 (0.06, $p < 0.10$) and indicates that, for underperforming firms, moving from one standard deviation below to one standard deviation above the mean of employment tie strength increases the likelihood of CEO exit by 23 percent. Interestingly, however, the corresponding coefficient for superior performing firms in Model 9 is also positive and statistically significant (0.09, $p < 0.05$). This coefficient indicates that, for superior performing firms,

a similar change in employment tie strength between the TMT and board increases the likelihood of CEO exit by 36 percent. This finding suggests that the effects of TMT to board employment tie strength on CEO exit is not restricted to, and in fact appears to be greater, in superior performing relative to underperforming firms. Still, results generally provide support for Hypothesis 2.2a.

By contrast, the coefficient for the effect of shared political orientations between the TMT and board on CEO exit is negative and statistically significant ($-0.74, p < 0.05$). Contrary to expectation, this coefficient suggests that greater shared political orientations between the TMT and the board reduces the likelihood of CEO exit. Specifically, in the sample of underperforming firms, increasing shared political ties from one standard deviation below to one standard deviation above the mean decreases the likelihood of CEO exit by 26 percent. Thus, Hypothesis 2.3a is not supported.

Hypotheses 2.4a, 2.5a, and 2.6a respectively predict that CEO power will reduce the positive effect of elite education ties, employment ties, and shared political orientations between the TMT and board on CEO turnover. As would be expected, the main effect of CEO power is statistically significant and negatively related to CEO turnover ($-0.14, p < 0.001$). However, none of the interactions between power and elite education ties, employment ties, or shared political orientations are statistically significant. Thus, these hypotheses are not supported.

TMT turnover. Results of models predicting TMT turnover are provided in Table 2.3. As with the CEO turnover models, the table provides estimates for the full sample of firms (Models 10 to 12), the subsample of underperforming firms (Models 13

to 15), and the subsample of superior performing firms (Models 16 to 18). Additionally, for each group of firms, I provide results of the control model, the model adding the independent variables, and the fully specified model. I also interpret the effect size of statistically significant coefficients using the same method of calculating marginal effects.

Hypotheses 2.1b, 2.2b, and 2.3b respectively predict that the strength of the elite education ties, employment ties, and shared political orientations between the CEO and board will increase the likelihood that one or more members of the TMT exit the firm when it is underperforming. The coefficient for elite education tie strength between the CEO and the board is positive and statistically significant in Model 15 (0.05, $p < 0.05$). This coefficient indicates that moving from one standard deviation below to one standard deviation above the mean increases the likelihood of TMT exit by 25 percent. Moreover, the corresponding coefficient in Model 18 for superior performing firms is not statistically significant. This supports the idea that the effect of elite education ties between the CEO and the board on TMT exit is most likely in underperforming firms. Thus, these results support Hypothesis 2.1b.

Unlike for the CEO turnover models, the coefficient for employment tie strength between the CEO and board is not statistically significant in the models predicting TMT turnover. This is the case for the full sample as well as both subsamples of firms based on under- or superior performance. These results thus do not provide support for Hypothesis 2.2b.

The coefficient for the effect of shared political orientations between the CEO and board on TMT exit is positive and statistically significant in Model 15 (0.29, $p < 0.05$). This coefficient suggests that, in underperforming firms, moving from one standard deviation below to one standard deviation above the mean of shared political orientations between the CEO and the board increases the likelihood of TMT exit by 24 percent. At the same time, the corresponding effect for this variable in superior performing firms is also positive and marginally statistically significant (0.27, $p < 0.10$) and indicates that a similar change in this group of firms increases the likelihood of TMT exit by 20 percent. Therefore, both the effect size and level of significance support the idea that shared political orientations between the CEO and the board would have a greater effect on TMT exit in underperforming as compared to superior performing firms. Overall, Hypothesis 2.3b is supported.

Hypotheses 2.4b, 2.5b, and 2.6b respectively predict that TMT power will reduce the positive effect of elite education ties, employment ties, and shared political orientations between the CEO and board on TMT turnover. Again, consistent with expectation, the main effect of TMT power is negative and statistically significant (-0.13 , $p < 0.001$). Like the CEO turnover models, however, none of the interactions are statistically significant. Therefore, these hypotheses are not supported.

Board turnover. Results of models predicting board turnover are provided in Table 2.4. I follow the same conventions in organizing these models as for the CEO and TMT turnover models. That is, the table provides estimates for the full sample (Models 19 to 21), underperforming firms (Models 22 to 24), and superior performing firms

(Models 25 to 27). I also provide results for models at the three previously used levels of specification and interpret effect sizes using marginal effects going from one standard deviation below to one standard deviation above the mean of statistically significant variables.

Hypotheses 2.1c, 2.2c, and 2.3c respectively predict that the strength of the elite education ties, employment ties, and shared political orientations between the CEO and TMT will increase the likelihood that one of more outside directors will exit the firm when it is underperforming. Neither the coefficients for elite education tie strength nor for employment tie strength between the CEO and the TMT are statistically significant in any models predicting board exit. Thus, Hypotheses 2.1c and 2.2c are not supported.

The coefficient for shared political orientations between the CEO and TMT is positive and statistically significant in Model 24 (0.36, $p < 0.05$). This coefficient suggests that, in underperforming firms, moving from one standard deviation below to one standard deviation above the mean of shared political orientations between the CEO and the TMT increases the likelihood of director exit by 22 percent. Further, the corresponding coefficient is also positive and marginally statistically significant in the subsample of superior performing in Model 27 (0.25, $p < 0.10$). The marginal effect of this variable going from one standard deviation below to one standard deviation above the mean is 15. As with TMT exit, then, these results indicate that shared political orientations between the CEO and the board have a stronger effect on director exit in underperforming as compared to superior performing firms. Hypothesis 2.3c is thus supported.

Hypotheses 2.4c, 2.5c, and 2.6c respectively predict that board power will reduce the positive effect of elite education ties, employment ties, and shared political orientations between the CEO and TMT on director turnover. Interestingly, in this case, the main effect of board power is positive and statistically significant in Model 24 (0.10, $p < 0.01$), suggesting that greater board power increases the likelihood of director exit in underperforming firms. As with the other turnover models, however, none of the interactions between board power and CEO to TMT ties are statistically significant. These hypotheses are thus not supported.

3.4.2. Performance Models

Results of models predicting the change in firm performance following tie-driven CEO, TMT, and board turnover are respectively provided in Table 2.5, Table 2.6, and Table 2.7. In each case, I provide results including the control variables only and then adding the independent variable for the full sample as well as the subsamples of low and high performing firms.

Hypothesis 2.7a predicts that, in underperforming firms, tie-driven CEO turnover will lead to more negative subsequent performance. The coefficient for this variable in Model 31, the full model for the sample of underperforming firms, is negative and statistically significant (-0.04, $p < 0.05$). This suggests that, on average, tie-driven CEO turnover leads to an average decrease in ROA of about 4 percent in the year following exit. For the average firm in the subsample of underperforming firms, this equates to a \$1.62 million loss in net income in the year following tie-driven CEO turnover. Interestingly, there is also a negative and statistically significant effect in Model 33 for

the sample of superior-performing firms (-0.02 , $p < 0.01$). This coefficient suggests that tie-driven CEO turnover from superior-performing firms leads to an average decrease in ROA of about 2 percent in the year following exit. For the average firm in the subsample of superior performing firms, this equates to a loss of approximately \$12.06 million in net income. These results indicate that the practical significance of tie-driven turnover is actually greater in superior- relative to underperforming firms. Nevertheless, these results provide support for Hypothesis 2.7a.

Hypotheses 2.7b and 2.7c predict that tie-driven TMT and board turnover will, respectively, be negatively associated with the subsequent change in performance in underperforming firms. Unlike for CEO exit, tie-driven TMT and board turnover is not statistically significant in any of the models in Tables 2.6 or 2.7. This is the case for both underperforming as well as superior performing firms, suggesting that tie-driven TMT and board turnover do not have an effect on the subsequent change in performance. Thus, Hypotheses 2.7b and 2.7c are not supported.

3.5. DISCUSSION

This study sought to integrate research on power contestation with the social networks and social identification literatures to develop and test theory focused on how social ties and shared values among the triad of the CEO, TMT, and board influence who leaves when the firm is underperforming. As such, this study provides important contributions to the power contestation literature as well as research on executive and director turnover. In this section, I describe several of these contributions before outlining some potential ways in which this study may inform future research.

3.5.1. Contributions

As mentioned previously, there has been a strong focus in the power contestation literature on the CEO succession process and particularly on how sociopolitical and power dynamics between the CEO and the board influence whether the CEO is dismissed and who replaces the CEO when he or she is dismissed (e.g., Cannella & Lubatkin, 1993; Ocasio, 1994; Shen & Cannella, 2002b, 2002a; Zajac & Westphal, 1996b). This study therefore extends work on power contestation by considering how social psychological and sociopolitical factors among a broader group of top organizational members influences turnover outcomes for members beyond the CEO. I specifically find that, when the TMT and the board share stronger social ties, this increases the likelihood that the CEO will leave the firm. Similarly, when the CEO and the board share strong connections through elite education ties or share political orientations, members of the TMT are more likely to leave. These results highlight the pivotal role of connections to the board in determining outcomes for the CEO and other executives. At the same time, I also find that when the CEO and the TMT have greater shared political orientations, this increases the likelihood of board turnover. As such, I contribute to research on power contestation by not only demonstrating that social ties and shared values affect turnover outcomes for top organizational members, but also by developing a better understanding regarding which ties are most critical in determining the outcome of power contests.

In addition, I contribute to the power contestation literature by expanding our understanding of the performance implications of intra-organizational contests for

power. Although research in this area has examined how successor type influences subsequent firm performance (see Finkelstein et al., 2009), it has largely overlooked the question of whether there are different performance implications based on who leaves the firm when it is underperforming. My findings suggest that, when CEO turnover is driven by strong ties between the TMT and the board, this may prevent turnaround and lead to worsening performance. As such, I not only confirm past research that suggests CEO turnover in underperforming firms may often be more symbolic than substantive (Gangloff et al., 2016; Kesner & Dalton, 1994; Khanna & Poulsen, 1995; Pfeffer, 1981a; Rowe et al., 2005), but also provide evidence that scapegoating is detrimental to firm performance. Thus, my findings challenge the notion that CEO turnover is necessary to effectively turn around poorly performing organizations (e.g., Arogyaswamy et al., 1995; Barker & Duhaime, 1997; Bibault, 1982) and contribute to research on turnover in underperforming firms by clarifying that, when driven by social or sociopolitical dynamics, turnover can actually inhibit rather than facilitate recovery.

At the same time, my findings suggest that the effects of tie-driven CEO turnover are not unique to underperforming firms. Although the ties I examine appear to have stronger effects in the subsample of underperforming firms, many of them also do influence turnover in superior-performing firms. Results also indicate that when the CEO leaves and the TMT and board share stronger ties, this may lead to an even more significant dip in firm performance for superior-performing firms as compared to underperforming firms. In this way, I contribute back to the more general literatures on executive and director turnover by demonstrating how social ties and shared values

affect turnover outcomes for these organizational members as well as subsequent firm performance. Also, since I find these effects after controlling for various measures of demographic and experience diversity used in past work, I also contribute to the general turnover literature by identifying factors at the top of the organization that may be more reflective of deep-level diversity (Harrison et al., 1998).

3.5.2. Future Research

The findings of this study also point to a number of potentially fruitful areas for future research. In particular, the finding that stronger shared political orientations between the TMT and the board decrease the likelihood of CEO turnover runs contrary to expectation and may inspire further inquiry. Future work could build on this finding to explore the boundary conditions of the relationships I examine and clarify when diversity along certain social or value-based dimensions may have different effects. For instance, past work suggests that boards have a tendency to dismiss demographically dissimilar CEOs in order to replace them with more similar individuals (Zajac & Westphal, 1996b). So what is it about political affiliations that might cause differences in a CEO's political orientations to mitigate rather than increase the likelihood of turnover? Do boards recognize that an incumbent CEO with contrasting views to other TMT members may be in a better position to improve the firm's performance, even if those views also differ from the dominant position of the board? Or could it be that, when CEOs are more different along the value-dimension, this reflects that their appointment was intentionally based on those differences such that they provide a buffer from dismissal? Examining questions such as this for political orientation or other value-based

factors (e.g., religion), may help future work further distinguish between various deep-level characteristics.

Future research may extend the findings from this study by taking the relationships I examine to the individual level. Although taking a firm or group-level approach allows for me to focus on the creation of factions or coalitions at the top of the firm, this does reduce some of the nuance that may be gained by looking at turnover at the individual level. In particular, while the effect of social ties and shared values between any two members of the CEO-TMT-board triad would presumably lead to turnover of the most dissimilar members of the opposing group, I do not directly examine this proposition. Additional research at the individual level may therefore help to determine whether the least connected individuals are truly the ones who leave when the firm is underperforming. Similarly, although my results support the theoretical argument that tie-driven exit reflects scapegoating, the nature of my data limits my ability to directly explore the reason for turnover. Follow-up studies may be able to get better at this by taking a qualitative approach and directly examining attributions of blame in formal firm communications to external constituents via press releases or conference calls with equity analysts. In either case, future work may be able to better answer the question: are the least connected individuals the most likely to be blamed for poor performance?

Finally, scholars may build on this study by integrating alternative theories into the examination of turnover among top organizational members. Future work may specifically incorporate resource dependence theory to better understand some of the

boundary conditions of tie-driven turnover and subsequent performance. For example, how do superior external connections (e.g., through board interlocks) moderate the relationships between internal connections and turnover? Are those with better ties to external resources less likely to be dismissed, even when they have fewer internal connections? Or are such individuals more likely to use those external links to find alternative employment? Also, what are the performance consequences of turnover for those with stronger external networks? Similarly, further incorporating a psychological perspective may offer new insights into the kinds of factors that affecting group composition and dynamics at the top of the organization. For example, how is personality reflected in the composition of the TMT? The board? Do boards select CEO's for particular situations based on personality? Or how does personality diversity affect individual or organizational outcomes such as turnover and performance? Clearly, many questions remain unanswered in the literature on team composition and turnover at the top of the firm. Expanding on the findings of this study may provide a useful origin for addressing many of those questions.

4. SUMMARY AND CONCLUSIONS

The goal of this dissertation was to explore how employment ties, education ties, and shared political orientations, as a reflection of deep-level similarities and differences, influences turnover among CEOs, TMTs, and boards of underperforming firms. Using a sample of executives and directors of S&P 1500 firms, the dissertation provided a set of analyses at different levels of analysis demonstrating the relevance of these factors in determining patterns of turnover among these organizational members. At the individual level, the first study found that employment ties and ties to the CEO were particularly influential in determining whether a given executive left the firm. Also, while these effects were manifest in poor performing firms, results indicated that social ties and shared values between individual executives and the CEO or the rest of the team had an even stronger influence on their likelihood of leaving superior performing firms.

The second study took a group-level approach and demonstrated the prominent role of shared political orientations among the triad of the CEO, TMT, and board in influencing which of these members left the firm when it was underperforming. It also demonstrated that, for executives, ties to the board were particularly important in determining whether the CEO or members of the TMT were pushed out of underperforming firms. Moreover, it found that, while tie-driven TMT turnover and board turnover did not affect subsequent performance, tie-driven CEO turnover was detrimental to both underperforming and superior-performing firms.

The dissertation therefore confirms past work indicating that both CEOs and boards play a prominent role in the circulation of power among the dominant coalition of

the firm. It also provides a number of new insights to theory and research on executive and director turnover, especially regarding the factors that are most likely to influence the social and sociopolitical dynamics at the top of the firm. As such, it opens various new avenues for future research to better understand the processes governing the corporate elite and how these processes are likely to influence the firms they manage.

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APPENDIX

Table 1.1. Descriptive Statistics and Correlations (Study 1)

#	Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1	Executive turnover	0.24	0.43											
2	Education tie strength (CEO)	-0.01	1.68	-0.02										
3	Employment tie strength (CEO)	-0.11	1.87	-0.05	0.04									
4	Shared political orientations (CEO)	0.28	0.45	-0.06	0.02	0.08								
5	Education tie strength (TMT)	-0.01	1.67	-0.02	0.12	0.04	0.03							
6	Employment tie strength (TMT)	-0.14	1.85	-0.05	0.03	0.64	0.09	0.05						
7	Shared political orientations (TMT)	0.44	0.50	-0.03	0.02	0.03	0.36	0.01	0.04					
8	TMT pay gap	4308.12	9774.44	0.01	-0.01	0.02	0.04	0.00	0.01	-0.01				
9	CEO pay gap	-6.79	2938.64	-0.01	0.00	-0.02	-0.03	0.00	-0.01	-0.02	0.24			
10	CEO exit	0.12	0.32	0.08	-0.01	-0.03	-0.03	0.00	0.00	-0.01	-0.02	0.00		
11	TMT exit	0.24	0.25	0.11	-0.02	-0.04	-0.03	-0.02	-0.05	-0.01	0.02	0.00	0.14	
12	Age	51.59	7.46	0.13	0.02	0.00	0.07	-0.02	-0.01	0.02	-0.02	-0.04	-0.03	-0.07
13	Female	0.08	0.27	0.02	-0.02	-0.02	-0.03	-0.02	-0.01	-0.01	0.02	0.03	0.01	0.03
14	TMT age diversity	0.12	0.05	0.01	-0.02	-0.05	-0.03	-0.03	-0.02	-0.01	-0.04	0.00	0.05	0.02
15	TMT gender diversity	0.10	0.16	0.05	-0.01	-0.01	-0.04	-0.02	0.00	-0.01	0.02	0.00	0.03	0.08
16	TMT ethnic diversity	0.05	0.12	0.02	-0.01	-0.02	-0.04	-0.01	-0.01	-0.03	0.03	0.00	-0.01	0.03
17	TMT education level diversity	0.43	0.17	0.01	-0.03	-0.03	0.00	-0.08	-0.04	-0.02	-0.07	0.00	0.03	0.03
18	TMT firm tenure diversity	0.73	0.34	0.10	-0.01	-0.13	-0.05	-0.03	-0.12	-0.02	0.00	0.00	0.09	0.17
19	TMT industry tenure diversity	0.50	0.20	0.06	-0.02	-0.02	-0.04	-0.01	-0.02	-0.02	-0.02	0.00	0.04	0.10
20	TMT industry experience diversity	0.38	0.14	0.02	-0.03	-0.13	-0.02	-0.02	-0.15	-0.02	-0.01	0.00	0.01	0.03
21	Log of employees	2.26	1.30	0.04	-0.02	-0.04	0.12	-0.04	-0.04	0.00	0.19	0.00	0.05	0.07
22	Material restatements	0.07	0.25	0.02	0.00	0.01	-0.02	0.00	0.00	-0.01	-0.02	0.00	0.03	0.04
23	Lawsuits against firm	0.30	0.46	0.05	-0.01	0.00	0.06	-0.01	-0.01	0.00	0.10	0.00	0.07	0.08
24	Industry concentration ratio	0.12	0.13	0.01	-0.02	-0.09	-0.03	-0.02	-0.10	0.01	-0.01	0.00	0.01	0.01
25	Industry dynamism	0.04	0.04	0.01	-0.01	0.01	-0.01	0.01	0.00	0.00	-0.01	0.00	0.00	0.02
26	Industry munificence	0.04	0.12	-0.01	0.00	0.02	0.00	0.02	0.03	0.01	0.03	0.00	-0.02	-0.02

Table 1.1. (Continued)

#	Variable	12	13	14	15	16	17	18	19	20	21	22	23	24	25
13	Female	-0.08													
14	TMT age diversity	-0.10	-0.02												
15	TMT gender diversity	-0.05	0.48	-0.04											
16	TMT ethnic diversity	-0.02	0.03	-0.04	0.06										
17	TMT education level diversity	-0.01	-0.01	0.10	-0.03	-0.07									
18	TMT firm tenure diversity	-0.06	0.03	0.12	0.07	0.00	0.08								
19	TMT industry tenure diversity	0.06	0.01	0.11	0.03	-0.01	0.04	0.43							
20	TMT industry experience diversity	0.03	0.01	0.01	0.02	0.02	0.06	0.08	0.03						
21	Log of employees	0.11	0.02	-0.17	0.05	0.07	-0.02	0.04	0.02	0.11					
22	Material restatements	-0.01	0.01	0.01	0.02	-0.01	0.01	0.02	0.03	0.00	-0.01				
23	Lawsuits against firm	0.01	0.01	-0.09	0.03	0.06	-0.06	0.02	-0.04	0.04	0.29	0.02			
24	Industry concentration ratio	0.02	0.00	-0.03	0.01	0.05	0.05	-0.01	0.02	0.02	0.11	-0.01	0.02		
25	Industry dynamism	-0.01	-0.01	0.00	-0.02	-0.02	0.03	0.04	0.01	0.03	-0.03	0.00	-0.02	0.28	
26	Industry munificence	-0.01	-0.01	0.00	-0.02	-0.01	-0.03	-0.04	-0.03	-0.03	-0.05	0.01	0.02	-0.15	-0.28

Table 1.2. Results of Random Effects Logistic Regression Predicting Executive Turnover

Variables	Full Sample (N = 62,260)			Low Performers (N = 27,983)			High Performers (N = 34,277)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Education tie strength (CEO)		-0.07 (0.67)	-0.08 (0.85)		-0.02 (0.03)	-0.02 (0.03)		-0.20 (0.74)	-0.20* (0.08)
Employment tie strength (CEO)		-0.25 (3.06)	-0.25 (3.84)		-0.13*** (0.03)	-0.13*** (0.03)		-0.25 (0.81)	-0.25** (0.08)
Political tie strength (CEO)		-1.25 (13.21)	-1.25 (16.59)		-0.76*** (0.11)	-0.76*** (0.11)		-1.28 (4.08)	-1.29*** (0.29)
Education tie strength (TMT)		-0.01 (0.08)	-0.01 (0.08)		-0.00 (0.02)	-0.00 (0.02)		-0.09 (0.35)	-0.09 (0.10)
Employment tie strength (TMT)		-0.21 (3.02)	-0.21 (3.77)		-0.09** (0.03)	-0.09** (0.03)		-0.21 (0.86)	-0.21* (0.09)
Political tie strength (TMT)		-0.06 (0.36)	-0.06 (0.43)		-0.09 (0.07)	-0.09 (0.07)		-0.06 (0.26)	-0.06 (0.19)
CEO pay gap		-0.00 (0.00)	-0.00 (0.00)		0.00 (0.00)	0.00 (0.00)		0.00 (0.00)	0.00 (0.00)
TMT pay gap		-0.00 (0.00)	-0.00 (0.00)		-0.00+ (0.00)	-0.00* (0.00)		-0.00 (0.00)	-0.00* (0.00)
Education tie strength x pay gap (CEO)			-0.00 (0.00)			0.00 (0.00)			-0.00 (0.00)
Employment tie strength x pay gap (CEO)			-0.00 (0.00)			-0.00 (0.00)			-0.00 (0.00)
Political tie strength x pay gap (CEO)			0.00 (0.00)			-0.00 (0.00)			0.00 (0.00)
Education tie strength x pay gap (TMT)			0.00 (0.00)			-0.00 (0.00)			0.00 (0.00)
Employment tie strength x pay gap (TMT)			0.00 (0.00)			0.00 (0.00)			-0.00 (0.00)
Political tie strength x pay gap (TMT)			-0.00 (0.00)			-0.00 (0.00)			-0.00 (0.00)

Table 1.2. (Continued)

Variables	Full Sample (N = 62,260)			Low Performers (N = 27,983)			High Performers (N = 34,277)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
CEO exit	0.42 (0.26)	0.40 (1.28)	0.40 (1.61)	0.57*** (0.07)	0.57*** (0.08)	0.57*** (0.08)	0.38** (0.15)	0.36 (0.36)	0.36+ (0.20)
TMT exit	1.03 (3.51)	1.04 (8.72)	1.03 (10.86)	1.36*** (0.10)	1.31*** (0.15)	1.31*** (0.15)	0.75** (0.24)	0.77 (1.98)	0.77* (0.32)
Age	1.44 (6.32)	1.42 (17.37)	1.42 (21.81)	0.22*** (0.01)	0.23*** (0.03)	0.23*** (0.03)	0.90*** (0.25)	1.16 (4.06)	1.16*** (0.02)
Female	5.17 (23.46)	3.09 (38.41)	3.08 (48.02)	0.32+ (0.18)	0.31 (0.20)	0.31 (0.20)	2.75** (0.87)	3.42 (12.32)	3.44*** (0.40)
TMT age diversity	-2.62 (7.31)	-0.34 (14.77)	-0.30 (19.25)	-1.15+ (0.68)	-1.33 (0.88)	-1.32 (0.88)	-0.56 (2.13)	0.51 (7.91)	0.58 (3.11)
TMT gender diversity	2.59 (9.43)	2.53 (26.11)	2.52 (32.74)	1.71*** (0.24)	1.71*** (0.33)	1.71*** (0.33)	2.35** (0.75)	2.49 (7.76)	2.49** (0.85)
TMT ethnic diversity	1.68 (6.47)	1.68 (18.52)	1.67 (22.94)	0.69* (0.28)	0.52 (0.37)	0.52 (0.37)	2.10* (0.87)	2.16 (7.29)	2.15* (1.06)
TMT education level diversity	-0.36 (1.83)	-0.25 (3.81)	-0.26 (4.76)	-0.42* (0.20)	-0.45+ (0.24)	-0.44+ (0.24)	0.21 (0.55)	0.31 (1.19)	0.30 (0.80)
TMT firm tenure diversity	-0.34 (2.55)	-0.35 (7.50)	-0.35 (9.41)	-0.10 (0.09)	-0.20* (0.10)	-0.20* (0.10)	-0.24 (0.25)	-0.30 (2.70)	-0.30 (0.34)
TMT industry tenure diversity	0.86 (3.18)	0.70 (6.71)	0.69 (8.20)	0.92*** (0.18)	0.93*** (0.22)	0.93*** (0.22)	1.15* (0.55)	1.01 (4.10)	1.00 (0.71)
TMT industry experience diversity	-1.16 (6.11)	-1.35 (19.18)	-1.34 (23.95)	-0.15 (0.24)	-0.40 (0.30)	-0.40 (0.30)	-1.45* (0.73)	-1.94 (6.39)	-1.94* (0.94)
Log of employees	-0.02 (0.36)	-0.10 (2.25)	-0.10 (2.78)	-0.09** (0.03)	-0.05 (0.05)	-0.05 (0.05)	0.26+ (0.14)	0.28 (0.80)	0.28+ (0.15)
Material restatements	0.42 (0.92)	0.39 (2.53)	0.39 (3.16)	0.42*** (0.08)	0.41*** (0.08)	0.41*** (0.08)	0.35+ (0.20)	0.37 (0.72)	0.38 (0.26)
Lawsuits against firm	0.17 (0.38)	0.18 (0.97)	0.18 (1.23)	0.19*** (0.05)	0.21*** (0.06)	0.21*** (0.06)	0.22* (0.10)	0.24 (0.42)	0.24+ (0.14)

Table 1.2. (Continued)

Variables	Full Sample (N = 62,260)			Low Performers (N = 27,983)			High Performers (N = 34,277)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Industry concentration ratio	1.90 (8.65)	1.57 (20.86)	1.57 (26.14)	1.28*** (0.29)	0.97** (0.37)	0.98** (0.37)	-0.45 (0.78)	-0.83 (3.03)	-0.82 (1.05)
Industry dynamism	0.36 (2.85)	0.28 (3.12)	0.29 (3.15)	-0.68 (0.74)	-0.57 (0.83)	-0.58 (0.84)	0.20 (1.98)	0.41 (3.70)	0.46 (2.75)
Industry munificence	-0.82 (5.16)	-0.82 (14.95)	-0.83 (19.00)	-0.78** (0.24)	-0.86* (0.43)	-0.86* (0.43)	-0.31 (0.52)	-0.27 (1.63)	-0.29 (0.75)
Constant	-79.56 (341.67)	-79.25 (946.21)	-79.28 (1,187.99)	-13.77*** (0.66)	-13.83*** (1.48)	-13.83*** (1.48)	-52.36*** (14.16)	-67.77 (230.46)	-67.74 (0.00)
Observations	62,260	62,260	62,260	27,983	27,983	27,983	34,277	34,277	34,277
Log likelihood	-27184	-27142	-27141	-14028	-13941	-13939	-15770	-15631	-15628

Notes: Robust standard errors in parentheses (clustered on firm).

+ $p < 0.1$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$. All tests two-tailed.

Table 2.1. Descriptive Statistics and Correlations (Study 2)

#	Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	CEO exit	0.11	0.31														
2	TMT exit	0.63	0.48	0.11													
3	Board exit	0.61	0.49	0.11	0.19												
4	Performance change	-0.00	0.14	-0.03	-0.00	-0.00											
5	Elite education tie strength (CEO to TMT)	0.78	2.24	0.00	0.03	0.00	0.01										
6	Elite education tie strength (CEO to board)	1.06	2.38	0.02	0.03	0.01	-0.00	0.42									
7	Elite education tie strength (TMT to board)	1.35	2.35	0.03	0.08	0.05	0.01	0.40	0.26								
8	Employment tie strength (CEO to TMT)	1.31	1.81	-0.03	-0.02	0.01	-0.01	0.02	-0.03	0.03							
9	Employment tie strength (CEO to board)	1.02	1.86	0.03	0.00	0.04	-0.01	0.02	0.08	0.02	0.21						
10	Employment tie strength (TMT to board)	1.36	1.87	0.05	0.07	0.05	-0.00	0.03	0.02	0.13	0.20	0.42					
11	Shared political orientations (CEO to TMT)	0.35	0.26	0.01	0.01	0.04	-0.00	-0.04	-0.02	-0.01	0.02	-0.03	-0.01				
12	Shared political orientations (CEO to board)	0.47	0.33	0.00	0.00	0.02	-0.00	-0.01	0.01	0.00	0.01	0.00	-0.01	0.13			
13	Shared political orientations (TMT to board)	0.28	0.21	-0.02	-0.05	0.04	-0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.08	0.58		
14	Education tie strength (CEO to TMT)	0.50	1.66	-0.03	-0.02	-0.01	-0.00	0.41	0.09	0.10	0.03	-0.02	-0.03	-0.01	-0.02	-0.01	
15	Education tie strength (CEO to board)	0.63	1.69	0.05	-0.01	-0.01	-0.00	0.15	0.60	0.09	0.00	0.07	0.01	-0.02	-0.01	0.01	0.20
16	Education tie strength (TMT to board)	0.86	1.58	0.01	0.07	0.03	-0.00	0.16	0.09	0.56	0.01	0.01	0.16	0.04	0.00	0.01	0.17
17	Tie-driven CEO exit	0.05	0.21	0.64	0.08	0.08	-0.04	-0.02	-0.03	0.09	0.01	0.04	0.13	0.02	0.03	0.06	-0.01
18	Tie-driven TMT exit	0.15	0.36	0.06	0.32	0.09	-0.01	0.02	0.24	0.00	0.09	0.32	0.14	0.06	0.22	0.09	-0.03
19	Tie-driven board exit	0.12	0.33	0.00	0.03	0.30	-0.01	0.14	0.03	0.04	0.40	0.08	0.08	0.28	0.05	0.05	0.05
20	CEO power	-0.08	2.99	-0.07	-0.02	0.03	-0.01	0.08	0.08	0.01	0.09	0.03	-0.06	0.03	-0.01	0.02	0.04
21	TMT power	-0.03	1.42	-0.01	-0.07	0.06	-0.00	0.10	0.06	0.18	0.07	0.02	0.10	0.03	0.01	0.09	0.01
22	Board power	0.02	0.99	0.02	0.02	0.04	-0.00	0.08	0.10	0.16	0.02	0.05	0.09	-0.01	-0.03	0.01	-0.01
23	CEO age	55.90	7.23	0.13	-0.07	-0.03	-0.00	-0.02	0.01	-0.05	-0.02	0.02	-0.06	-0.01	0.00	0.03	-0.04

Table 2.1. (Continued)

#	Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
24	CEO is female	0.02	0.15	-0.01	0.01	0.00	0.01	-0.01	0.01	0.02	-0.02	0.03	-0.01	0.00	0.01	-0.01	-0.03
25	CEO tenure	15.59	11.11	-0.02	-0.12	-0.06	-0.01	0.03	0.06	-0.05	-0.21	-0.15	-0.20	0.03	0.05	0.03	0.06
26	Board independence ratio	0.83	0.09	0.01	0.07	0.15	0.01	-0.05	0.00	0.02	0.07	0.05	0.07	0.03	-0.02	0.09	-0.03
27	TMT age diversity	0.12	0.05	0.04	0.03	-0.02	-0.00	0.00	0.03	0.00	-0.05	0.02	0.01	-0.02	0.02	-0.01	-0.03
28	TMT gender diversity	0.10	0.16	0.03	0.05	0.01	-0.00	0.00	0.02	0.03	-0.01	0.02	0.00	-0.01	-0.01	-0.03	-0.03
29	TMT ethnic diversity	0.06	0.13	-0.01	0.01	0.00	-0.00	0.02	0.04	0.06	-0.01	0.02	0.06	-0.01	-0.04	-0.03	-0.01
30	TMT education level diversity	0.43	0.18	0.02	0.04	0.00	-0.00	-0.14	-0.08	-0.16	-0.02	-0.04	-0.05	-0.01	0.06	0.01	-0.05
31	TMT company tenure diversity	0.70	0.33	0.09	0.20	0.10	-0.00	0.01	0.03	0.04	-0.17	-0.06	0.00	0.00	0.02	-0.05	-0.02
32	TMT industry tenure diversity	0.49	0.20	0.04	0.07	0.01	-0.01	-0.01	0.01	0.01	-0.05	-0.04	-0.01	-0.01	0.04	0.00	-0.04
33	TMT industry experience diversity	0.38	0.15	0.01	0.06	0.02	-0.00	0.01	0.06	0.00	-0.17	-0.04	-0.07	0.00	-0.01	0.00	-0.05
34	Board age diversity	0.12	0.04	-0.03	-0.01	0.06	0.01	0.02	0.06	0.05	-0.03	0.02	-0.02	-0.03	0.05	0.00	0.01
35	Board gender diversity	0.22	0.16	0.04	0.05	0.08	-0.00	0.06	0.04	0.08	0.01	-0.03	-0.03	0.03	-0.03	0.03	-0.01
36	Board ethnic diversity	0.12	0.15	0.03	0.04	0.04	0.01	0.04	0.05	0.11	0.06	0.02	0.03	0.03	-0.04	0.02	0.01
37	Board education level diversity	0.45	0.16	0.01	-0.02	0.06	-0.00	-0.10	-0.15	-0.22	0.03	-0.02	-0.01	0.03	0.05	0.05	-0.01
38	Board tenure diversity	0.70	0.27	0.03	0.06	0.10	0.01	-0.01	0.01	-0.01	-0.19	-0.11	-0.11	0.01	0.03	0.03	0.01
39	Board industry tenure diversity	1.56	0.66	0.03	0.04	0.08	-0.00	-0.04	-0.04	-0.02	0.06	-0.08	-0.11	0.09	0.03	0.06	0.02
40	Board industry experience diversity	0.44	0.13	0.00	-0.01	0.02	-0.00	-0.03	0.00	-0.03	-0.04	-0.06	-0.07	0.01	0.03	0.03	0.01
41	Log of employees	2.21	1.29	0.05	0.09	0.11	-0.00	0.07	0.05	0.13	-0.04	-0.07	-0.04	0.02	0.02	0.08	-0.03
42	Material restatements	0.07	0.25	0.03	0.00	0.00	0.01	-0.01	-0.02	-0.01	0.01	0.00	0.02	-0.02	-0.01	0.00	-0.01
43	Lawsuits against firm	0.29	0.45	0.07	0.08	0.08	0.02	0.06	0.05	0.12	0.01	0.01	0.04	0.02	-0.02	-0.01	-0.01
44	Industry concentration ratio	0.12	0.13	0.01	-0.01	0.00	0.01	-0.04	-0.04	-0.03	-0.11	-0.02	-0.02	0.00	0.05	0.04	-0.03
45	Industry dynamism	0.04	0.04	0.00	0.02	0.02	0.01	-0.02	-0.02	-0.01	0.01	0.00	-0.01	-0.02	0.01	0.02	-0.01
46	Industry munificence	0.04	0.12	-0.01	-0.03	-0.02	-0.03	0.03	0.02	0.02	0.02	0.04	0.04	0.00	-0.03	-0.04	-0.01

Table 2.1. (Continued)

#	Variable	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
16	Education tie strength (TMT to board)	0.19														
17	Tie-driven CEO exit (TMT to board)	0.01	0.04													
18	Tie-driven TMT exit (CEO to board)	0.13	0.01	0.04												
19	Tie-driven board exit (CEO to TMT)	-0.01	0.03	0.01	0.07											
20	CEO power	0.05	-0.04	-0.07	0.03	0.08										
21	TMT power	0.00	0.11	0.02	-0.02	0.08	0.05									
22	Board power	0.03	0.05	0.03	0.02	0.04	0.12	0.55								
23	CEO age	0.04	-0.07	0.05	0.01	0.01	0.20	-0.10	-0.13							
24	CEO is female	-0.02	0.01	-0.02	0.03	-0.02	-0.02	-0.01	0.00	-0.06						
25	CEO tenure	0.10	-0.01	-0.04	-0.06	-0.07	0.15	-0.10	-0.13	0.37	-0.06					
26	Board independence ratio	-0.03	-0.02	0.02	0.04	0.07	0.23	0.06	0.14	-0.05	0.04	-0.22				
27	TMT age diversity	0.07	0.04	0.02	0.00	-0.02	-0.17	-0.05	-0.10	0.20	-0.04	0.10	-0.28			
28	TMT gender diversity	-0.02	-0.01	0.02	0.02	-0.02	0.02	-0.01	0.02	-0.03	0.30	-0.06	0.06	-0.04		
29	TMT ethnic diversity	0.02	0.00	0.00	0.01	0.00	0.02	0.04	0.05	-0.05	0.02	-0.05	0.04	-0.04	0.05	
30	TMT education level diversity	-0.01	-0.06	0.00	0.02	-0.04	-0.11	-0.23	-0.13	0.04	-0.01	0.03	-0.06	0.09	-0.02	-0.06
31	TMT company tenure diversity	0.02	0.03	0.06	0.05	-0.04	-0.04	-0.18	-0.05	-0.01	0.02	0.02	0.05	0.11	0.07	0.00
32	TMT industry tenure diversity	0.00	0.03	0.05	-0.01	-0.02	0.00	-0.04	-0.05	0.09	0.03	0.03	0.04	0.10	0.02	-0.01
33	TMT industry experience diversity	0.03	-0.02	0.00	0.00	-0.08	0.03	-0.01	0.00	0.07	0.02	0.10	0.02	0.02	0.02	0.02
34	Board age diversity	0.03	0.03	-0.02	0.02	0.01	-0.13	-0.04	-0.02	-0.08	0.00	0.02	-0.17	0.13	-0.02	0.00
35	Board gender diversity	-0.02	0.01	0.03	0.01	0.02	0.16	0.15	0.10	0.00	0.03	-0.02	0.23	-0.17	0.13	0.01
36	Board ethnic diversity	-0.01	0.01	0.03	-0.01	0.05	0.16	0.14	0.10	0.03	0.05	-0.04	0.20	-0.15	0.05	0.10
37	Board education level diversity	-0.04	-0.08	0.00	0.00	0.05	-0.07	-0.13	-0.28	0.04	-0.01	0.06	-0.02	0.08	-0.03	-0.04
38	Board tenure diversity	0.01	0.02	0.01	0.00	-0.04	-0.02	-0.01	0.01	0.01	0.00	0.15	0.05	0.00	-0.02	-0.01
39	Board industry tenure diversity	-0.02	0.03	0.01	0.01	0.08	0.13	0.03	-0.04	0.07	0.01	0.08	0.11	-0.06	0.02	0.01
40	Board industry experience diversity	0.00	-0.03	-0.01	-0.02	0.00	-0.04	-0.06	-0.10	0.03	0.01	0.05	-0.01	0.05	-0.01	-0.02
41	Log of employees	-0.05	0.01	0.03	0.02	0.03	0.18	0.14	0.11	0.08	0.01	0.09	0.17	-0.16	0.05	0.08
42	Material restatements	-0.02	0.01	0.01	-0.01	0.00	-0.03	-0.01	-0.01	-0.02	0.01	-0.03	0.01	0.01	0.01	-0.01
43	Lawsuits against firm	-0.01	0.03	0.05	0.04	0.04	0.07	0.10	0.10	-0.02	0.00	-0.02	0.08	-0.08	0.03	0.06
44	Industry concentration ratio	-0.03	-0.04	0.01	-0.01	-0.04	-0.02	-0.02	0.00	0.01	0.00	0.03	0.00	-0.03	0.01	0.05
45	Industry dynamism	0.01	0.01	-0.01	-0.01	0.00	0.02	-0.03	-0.01	0.00	-0.02	-0.02	-0.01	0.00	-0.03	-0.01
46	Industry munificence	-0.02	-0.01	0.00	0.00	0.00	-0.01	0.05	0.04	-0.03	0.00	-0.03	-0.01	0.01	-0.01	-0.01

Table 2.1. (Continued)

#	Variable	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
31	TMT company tenure diversity	0.08															
32	TMT industry tenure diversity	0.04	0.43														
33	TMT industry experience diversity	0.06	0.09	0.05													
34	Board age diversity	0.06	-0.01	-0.05	-0.02												
35	Board gender diversity	-0.05	0.02	0.03	0.04	-0.08											
36	Board ethnic diversity	-0.04	-0.01	-0.01	0.05	-0.08	0.27										
37	Board education level diversity	0.13	0.04	0.04	-0.03	0.08	-0.02	-0.12									
38	Board tenure diversity	0.06	0.18	0.05	0.06	0.12	0.04	0.00	0.06								
39	Board industry tenure diversity	-0.04	0.03	0.09	0.06	-0.07	0.13	0.13	0.05	0.02							
40	Board industry experience diversity	-0.01	0.04	0.03	0.06	0.04	-0.01	-0.03	0.12	0.03	0.10						
41	Log of employees	0.01	0.05	0.03	0.12	-0.09	0.34	0.32	-0.04	0.06	0.18	-0.02					
42	Material restatements	0.01	0.02	0.03	-0.01	0.01	0.00	-0.01	0.02	0.00	0.00	0.00	-0.01				
43	Lawsuits against firm	-0.06	0.02	-0.03	0.04	-0.04	0.12	0.13	-0.07	0.02	0.05	-0.05	0.28	0.02			
44	Industry concentration ratio	0.05	-0.01	0.02	0.01	0.02	0.02	-0.01	0.01	0.03	-0.02	-0.03	0.09	-0.02	0.02		
45	Industry dynamism	0.04	0.03	0.01	0.02	0.00	-0.03	0.00	0.03	-0.01	-0.01	-0.01	-0.03	0.00	-0.02	0.28	
46	Industry munificence	-0.03	-0.04	-0.04	-0.03	0.01	-0.03	-0.02	-0.02	-0.01	-0.03	-0.02	-0.04	0.01	0.02	-0.14	-0.31

Table 2.2. Results of Random Effects Logistic Regression Predicting CEO Exit

Variables	Full Sample (N=13,294)			Low Performers (N=6,071)			High Performers (N=7,223)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Elite education tie strength (TMT to board)		0.04+ (0.02)	0.04+ (0.02)		0.04 (0.03)	0.05+ (0.03)		0.02 (0.03)	0.03 (0.03)
Employment tie strength (TMT to board)		0.08*** (0.02)	0.07** (0.02)		0.06* (0.03)	0.06+ (0.03)		0.10** (0.03)	0.09* (0.03)
Shared political orientations (TMT to board)		-0.58* (0.23)	-0.62* (0.25)		-0.72* (0.30)	-0.74* (0.32)		-0.41 (0.35)	-0.44 (0.36)
Elite education tie strength (CEO to TMT)		0.01 (0.02)	0.01 (0.02)		-0.00 (0.03)	-0.00 (0.03)		0.01 (0.03)	0.00 (0.03)
Employment tie strength (CEO to TMT)		-0.08** (0.03)	-0.08** (0.03)		-0.06* (0.03)	-0.06* (0.03)		-0.11** (0.04)	-0.11** (0.04)
Shared political orientations (CEO to TMT)		0.23 (0.18)	0.23 (0.18)		-0.02 (0.23)	-0.03 (0.23)		0.42+ (0.23)	0.43+ (0.24)
Elite education tie strength (CEO to board)		0.04+ (0.02)	0.03+ (0.02)		0.05* (0.02)	0.05* (0.02)		0.00 (0.03)	0.00 (0.03)
Employment tie strength (CEO to board)		0.03 (0.03)	0.03 (0.03)		0.03 (0.03)	0.03 (0.03)		0.02 (0.04)	0.02 (0.04)
Shared political orientations (CEO to board)		0.22 (0.16)	0.21 (0.15)		0.38* (0.19)	0.37* (0.19)		-0.06 (0.25)	-0.07 (0.25)
Elite education tie strength (TMT to board) x CEO power			0.01 (0.01)			0.00 (0.01)			0.01 (0.01)
Employment tie strength (TMT to board) x CEO power			-0.01+ (0.01)			-0.01 (0.01)			-0.02 (0.01)
Shared political orientations (TMT to board) x CEO power			-0.05 (0.07)			-0.04 (0.08)			-0.06 (0.11)
Education tie strength (TMT to board)	0.01 (0.02)	-0.05 (0.03)	-0.05 (0.03)	0.01 (0.03)	-0.05 (0.04)	-0.05 (0.04)	-0.01 (0.03)	-0.05 (0.04)	-0.05 (0.04)
CEO power	-0.14*** (0.01)	-0.13*** (0.01)	-0.13*** (0.01)	-0.14*** (0.02)	-0.14*** (0.02)	-0.14*** (0.02)	-0.13*** (0.02)	-0.13*** (0.02)	-0.13*** (0.02)

Table 2.2. (Continued)

Variables	Full Sample (N=13,294)			Low Performers (N=6,071)			High Performers (N=7,223)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
TMT exit	0.38*** (0.07)	0.35*** (0.07)	0.35*** (0.07)	0.41*** (0.10)	0.38*** (0.10)	0.38*** (0.10)	0.38*** (0.10)	0.35*** (0.10)	0.35*** (0.10)
Board exit	0.44*** (0.06)	0.43*** (0.06)	0.43*** (0.06)	0.49*** (0.09)	0.48*** (0.09)	0.48*** (0.09)	0.40*** (0.09)	0.40*** (0.09)	0.40*** (0.09)
CEO age	0.11*** (0.01)	0.11*** (0.01)	0.11*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.12*** (0.01)	0.12*** (0.01)	0.12*** (0.01)
CEO is female	-0.46 (0.33)	-0.50 (0.33)	-0.50 (0.33)	-0.09 (0.38)	-0.13 (0.38)	-0.15 (0.38)	-0.89+ (0.50)	-0.93+ (0.51)	-0.92+ (0.51)
CEO tenure	-0.01 (0.00)	-0.01 (0.00)	-0.01 (0.00)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.01* (0.01)	-0.02* (0.01)	-0.02* (0.01)
Board independence ratio	-0.37 (0.52)	-0.34 (0.53)	-0.37 (0.54)	0.63 (0.74)	0.80 (0.76)	0.79 (0.76)	-0.89 (0.65)	-0.97 (0.65)	-1.03 (0.65)
Log of employees	0.10** (0.04)	0.10** (0.04)	0.10** (0.04)	0.09* (0.04)	0.09* (0.04)	0.09* (0.04)	0.11* (0.05)	0.12* (0.05)	0.12* (0.05)
Material restatements	0.31** (0.11)	0.31** (0.11)	0.31** (0.11)	0.31* (0.14)	0.31* (0.14)	0.31* (0.14)	0.26 (0.19)	0.26 (0.19)	0.25 (0.19)
Lawsuits against firm	0.44*** (0.07)	0.42*** (0.07)	0.43*** (0.07)	0.43*** (0.10)	0.40*** (0.10)	0.40*** (0.10)	0.47*** (0.11)	0.46*** (0.11)	0.46*** (0.11)
Industry concentration ratio	-0.28 (0.31)	-0.35 (0.31)	-0.37 (0.31)	-0.11 (0.38)	-0.17 (0.39)	-0.19 (0.39)	-0.10 (0.45)	-0.18 (0.46)	-0.20 (0.46)
Industry dynamism	-0.51 (1.01)	-0.39 (1.00)	-0.40 (1.01)	-1.78 (1.32)	-1.67 (1.33)	-1.67 (1.34)	0.45 (1.40)	0.54 (1.39)	0.53 (1.40)
Industry munificence	-0.40 (0.33)	-0.44 (0.33)	-0.44 (0.33)	-0.19 (0.44)	-0.27 (0.45)	-0.27 (0.45)	-0.73 (0.49)	-0.76 (0.51)	-0.74 (0.50)
Constant	-9.27*** (0.68)	-9.44*** (0.70)	-9.42*** (0.70)	-8.94*** (0.94)	-9.02*** (0.94)	-9.01*** (0.95)	-9.05*** (0.87)	-9.15*** (0.90)	-9.13*** (0.90)

Table 2.2. (Continued)

Variables	Full Sample (N=13,294)			Low Performers (N=6,071)			High Performers (N=7,223)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Log likelihood	-4101	-4075	-4072	-2009	-1993	-1992	-2098	-2086	-2083

Notes: Robust standard errors in parentheses (clustered on firm).

+ $p < 0.1$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$. All tests two-tailed.

Table 2.3. Results of Random Effects Logistic Regression Predicting TMT Exit

Variables	Full Sample (N=13,294)			Low Performers (N=6,071)			High Performers (N=7,223)		
	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18
Elite education tie strength (CEO to board)		0.03+ (0.02)	0.03+ (0.02)		0.05* (0.02)	0.05* (0.02)		0.01 (0.02)	0.01 (0.02)
Employment tie strength (CEO to board)		-0.02 (0.02)	-0.02 (0.02)		-0.03 (0.02)	-0.03 (0.02)		-0.01 (0.02)	-0.01 (0.02)
Shared political orientations (CEO to board)		0.28** (0.10)	0.28** (0.10)		0.28+ (0.15)	0.29* (0.15)		0.27+ (0.14)	0.27+ (0.14)
Elite education tie strength (CEO to TMT)		0.01 (0.02)	0.01 (0.02)		-0.02 (0.02)	-0.02 (0.02)		0.02 (0.02)	0.02 (0.02)
Employment tie strength (CEO to TMT)		0.02 (0.02)	0.02 (0.02)		0.02 (0.02)	0.02 (0.02)		0.02 (0.02)	0.02 (0.02)
Shared political orientations (CEO to TMT)		0.08 (0.10)	0.08 (0.10)		0.26+ (0.14)	0.26+ (0.14)		-0.07 (0.14)	-0.07 (0.14)
Elite education tie strength (TMT to board)		0.07*** (0.01)	0.07*** (0.01)		0.07*** (0.02)	0.07*** (0.02)		0.08*** (0.02)	0.08*** (0.02)
Employment tie strength (TMT to board)		0.09*** (0.02)	0.09*** (0.02)		0.09*** (0.02)	0.09*** (0.02)		0.09*** (0.02)	0.09*** (0.02)
Shared political orientations (TMT to board)		-0.78*** (0.17)	-0.78*** (0.17)		-0.69** (0.23)	-0.66** (0.23)		-0.85*** (0.24)	-0.87*** (0.24)
Elite education tie strength (CEO to board) x TMT power			-0.01 (0.01)			-0.00 (0.01)			-0.02 (0.01)
Employment tie strength (CEO to board) x TMT power			-0.01 (0.01)			-0.01 (0.01)			-0.01 (0.01)
Shared political orientations (CEO to board) x TMT power			-0.00 (0.05)			-0.05 (0.07)			0.05 (0.07)
Education tie strength (CEO to board)	-0.03+ (0.01)	-0.05** (0.02)	-0.05** (0.02)	-0.03 (0.02)	-0.06** (0.02)	-0.06** (0.02)	-0.02 (0.02)	-0.04 (0.03)	-0.04 (0.03)
TMT power	-0.10*** (0.02)	-0.12*** (0.02)	-0.12*** (0.02)	-0.11*** (0.03)	-0.13*** (0.03)	-0.13*** (0.03)	-0.10*** (0.02)	-0.12*** (0.03)	-0.12*** (0.03)

Table 2.3. (Continued)

Variables	Full Sample (N=13,294)			Low Performers (N=6,071)			High Performers (N=7,223)		
	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18
CEO exit	0.71*** (0.13)	0.70*** (0.13)	0.70*** (0.13)	0.74*** (0.18)	0.74*** (0.18)	0.74*** (0.18)	0.74*** (0.18)	0.74*** (0.18)	0.74*** (0.18)
Board exit	0.55*** (0.04)	0.55*** (0.04)	0.55*** (0.04)	0.63*** (0.06)	0.61*** (0.06)	0.61*** (0.06)	0.51*** (0.06)	0.51*** (0.06)	0.51*** (0.06)
TMT age diversity	2.04*** (0.55)	1.92*** (0.55)	1.92*** (0.55)	2.12** (0.76)	1.86* (0.75)	1.86* (0.75)	1.74* (0.71)	1.76* (0.71)	1.76* (0.71)
TMT gender diversity	0.62*** (0.18)	0.58** (0.18)	0.58** (0.18)	0.44+ (0.25)	0.41+ (0.25)	0.41 (0.25)	0.65** (0.23)	0.62** (0.24)	0.63** (0.24)
TMT ethnic diversity	0.06 (0.23)	-0.06 (0.23)	-0.06 (0.23)	-0.10 (0.31)	-0.20 (0.30)	-0.20 (0.30)	0.21 (0.30)	0.05 (0.30)	0.04 (0.30)
TMT education level diversity	0.43** (0.17)	0.56** (0.17)	0.54** (0.17)	0.22 (0.23)	0.33 (0.23)	0.32 (0.23)	0.55* (0.22)	0.70** (0.22)	0.68** (0.22)
TMT company tenure diversity	1.22*** (0.10)	1.17*** (0.10)	1.17*** (0.10)	1.35*** (0.13)	1.30*** (0.13)	1.30*** (0.13)	1.16*** (0.13)	1.12*** (0.13)	1.12*** (0.13)
TMT industry tenure diversity	-0.17 (0.16)	-0.19 (0.16)	-0.19 (0.16)	-0.10 (0.20)	-0.12 (0.20)	-0.12 (0.20)	-0.27 (0.21)	-0.29 (0.21)	-0.30 (0.21)
TMT industry experience diversity	0.48* (0.19)	0.56** (0.19)	0.55** (0.19)	0.59* (0.26)	0.66* (0.26)	0.66* (0.26)	0.39 (0.25)	0.49+ (0.25)	0.48+ (0.25)
Log of employees	0.13*** (0.02)	0.13*** (0.02)	0.13*** (0.02)	0.12*** (0.03)	0.11*** (0.03)	0.11*** (0.03)	0.14*** (0.03)	0.15*** (0.03)	0.15*** (0.03)
Material restatements	-0.02 (0.08)	-0.02 (0.08)	-0.02 (0.08)	0.02 (0.11)	0.05 (0.11)	0.05 (0.11)	-0.08 (0.13)	-0.11 (0.13)	-0.11 (0.13)
Lawsuits against firm	0.22*** (0.05)	0.19*** (0.05)	0.19*** (0.05)	0.18** (0.07)	0.15* (0.07)	0.15* (0.07)	0.26*** (0.07)	0.23** (0.07)	0.23** (0.07)
Industry concentration ratio	-0.44* (0.21)	-0.34+ (0.21)	-0.34+ (0.21)	-0.55+ (0.30)	-0.47 (0.30)	-0.47 (0.30)	-0.27 (0.28)	-0.12 (0.29)	-0.12 (0.29)
Industry dynamism	0.59 (0.71)	0.55 (0.72)	0.58 (0.71)	-0.04 (0.97)	-0.15 (0.96)	-0.11 (0.96)	1.24 (0.92)	1.21 (0.95)	1.26 (0.95)
Industry munificence	-0.35 (0.22)	-0.42* (0.22)	-0.42+ (0.22)	-0.30 (0.32)	-0.39 (0.32)	-0.39 (0.32)	-0.42 (0.29)	-0.51+ (0.29)	-0.48+ (0.29)

Table 2.3. (Continued)

Variables	Full Sample (N=13,294)			Low Performers (N=6,071)			High Performers (N=7,223)		
	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18
Constant	-1.39*** (0.15)	-1.57*** (0.16)	-1.57*** (0.16)	-1.41*** (0.19)	-1.63*** (0.22)	-1.64*** (0.22)	-1.33*** (0.20)	-1.52*** (0.22)	-1.50*** (0.22)
Log likelihood	-8137	-8060	-8058	-3681	-3642	-3641	-4457	-4412	-4409

Notes: Robust standard errors in parentheses (clustered on firm).

+ $p < 0.1$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$. All tests two-tailed.

Table 2.4. Results of Random Effects Logistic Regression Predicting Board Exit

Variables	Full Sample (N=13,294)			Low Performers (N=6,071)			High Performers (N=7,223)		
	Model 19	Model 20	Model 21	Model 22	Model 23	Model 24	Model 25	Model 26	Model 27
Elite education tie strength (CEO to TMT)		-0.02+ (0.01)	-0.02+ (0.01)		-0.02 (0.02)	-0.02 (0.02)		-0.03 (0.02)	-0.03 (0.02)
Employment tie strength (CEO to TMT)		0.00 (0.02)	0.00 (0.02)		0.02 (0.02)	0.02 (0.02)		-0.01 (0.02)	-0.01 (0.02)
Shared political orientations (CEO to TMT)		0.31** (0.10)	0.31** (0.10)		0.36* (0.15)	0.36* (0.14)		0.25+ (0.13)	0.25+ (0.13)
Elite education tie strength (CEO to board)		0.01 (0.01)	0.01 (0.01)		0.02 (0.02)	0.02 (0.02)		0.01 (0.02)	0.01 (0.02)
Employment tie strength (CEO to board)		0.05** (0.02)	0.05** (0.02)		0.03 (0.02)	0.03 (0.02)		0.06** (0.02)	0.06** (0.02)
Shared political orientations (CEO to board)		-0.15 (0.10)	-0.15 (0.10)		-0.16 (0.14)	-0.17 (0.14)		-0.12 (0.13)	-0.12 (0.13)
Elite education tie strength (TMT to board)		0.03* (0.01)	0.03* (0.01)		0.02 (0.02)	0.02 (0.02)		0.04+ (0.02)	0.04+ (0.02)
Employment tie strength (TMT to board)		0.06*** (0.02)	0.06*** (0.02)		0.06** (0.02)	0.06** (0.02)		0.06** (0.02)	0.06** (0.02)
Shared political orientations (TMT to board)		0.44** (0.16)	0.44** (0.16)		0.57* (0.24)	0.58* (0.24)		0.32 (0.21)	0.32 (0.21)
Elite education tie strength (CEO to TMT) x board power			0.00 (0.01)			-0.00 (0.02)			0.01 (0.02)
Employment tie strength (CEO to TMT) x board power			0.01 (0.01)			0.00 (0.02)			0.00 (0.02)
Shared political orientations (CEO to TMT) x board power			0.07 (0.10)			0.14 (0.15)			0.03 (0.13)
Education tie strength (CEO to TMT)	-0.02 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.03)	-0.00 (0.03)	-0.00 (0.03)	-0.04+ (0.02)	-0.02 (0.02)	-0.02 (0.02)
Board power	0.08** (0.03)	0.07* (0.03)	0.07* (0.03)	0.12** (0.04)	0.10* (0.04)	0.10** (0.04)	0.06 (0.04)	0.04 (0.04)	0.04 (0.04)

Table 2.4. (Continued)

Variables	Full Sample (N=13,294)			Low Performers (N=6,071)			High Performers (N=7,223)		
	Model 19	Model 20	Model 21	Model 22	Model 23	Model 24	Model 25	Model 26	Model 27
CEO exit	0.63*** (0.12)	0.58*** (0.12)	0.58*** (0.12)	0.87*** (0.18)	0.83*** (0.18)	0.83*** (0.18)	0.48** (0.16)	0.44** (0.16)	0.44** (0.16)
TMT exit	0.52*** (0.04)	0.51*** (0.04)	0.51*** (0.04)	0.70*** (0.06)	0.70*** (0.06)	0.70*** (0.06)	0.40*** (0.05)	0.38*** (0.05)	0.38*** (0.05)
Board age diversity	4.98*** (0.66)	4.93*** (0.67)	4.92*** (0.67)	4.93*** (0.88)	4.87*** (0.90)	4.85*** (0.90)	4.28*** (0.84)	4.31*** (0.85)	4.30*** (0.85)
Board gender diversity	0.13 (0.19)	0.14 (0.19)	0.14 (0.19)	0.21 (0.26)	0.25 (0.26)	0.25 (0.26)	0.26 (0.24)	0.25 (0.24)	0.25 (0.24)
Board ethnic diversity	-0.42* (0.21)	-0.50* (0.21)	-0.51* (0.21)	-0.57+ (0.29)	-0.67* (0.30)	-0.66* (0.30)	-0.18 (0.26)	-0.29 (0.26)	-0.29 (0.26)
Board education level diversity	1.14*** (0.19)	1.16*** (0.19)	1.15*** (0.19)	1.22*** (0.25)	1.21*** (0.26)	1.21*** (0.26)	1.03*** (0.24)	1.08*** (0.25)	1.07*** (0.25)
Board tenure diversity	0.41*** (0.10)	0.47*** (0.10)	0.47*** (0.10)	0.41** (0.14)	0.48*** (0.14)	0.48*** (0.14)	0.46*** (0.13)	0.51*** (0.14)	0.51*** (0.14)
Board industry tenure diversity	0.22*** (0.04)	0.24*** (0.04)	0.24*** (0.04)	0.22*** (0.06)	0.23*** (0.06)	0.23*** (0.06)	0.24*** (0.06)	0.26*** (0.06)	0.26*** (0.06)
Board industry experience diversity	0.43+ (0.23)	0.48* (0.23)	0.48* (0.22)	0.56+ (0.31)	0.58+ (0.31)	0.58+ (0.31)	0.29 (0.29)	0.35 (0.28)	0.35 (0.28)
Log of employees	0.17*** (0.03)	0.17*** (0.03)	0.17*** (0.03)	0.16*** (0.03)	0.16*** (0.03)	0.16*** (0.03)	0.16*** (0.03)	0.17*** (0.03)	0.17*** (0.03)
Material restatements	0.00 (0.08)	0.00 (0.08)	0.00 (0.08)	-0.11 (0.11)	-0.09 (0.11)	-0.09 (0.11)	0.08 (0.13)	0.07 (0.13)	0.07 (0.13)
Lawsuits against firm	0.21*** (0.05)	0.20*** (0.05)	0.20*** (0.05)	0.25*** (0.08)	0.24** (0.07)	0.24** (0.07)	0.19** (0.07)	0.18** (0.07)	0.18** (0.07)
Industry concentration ratio	-0.38+ (0.22)	-0.36 (0.22)	-0.36+ (0.22)	-0.30 (0.30)	-0.23 (0.31)	-0.23 (0.31)	-0.47+ (0.28)	-0.48+ (0.28)	-0.49+ (0.28)
Industry dynamism	1.47* (0.65)	1.44* (0.65)	1.44* (0.65)	1.73+ (0.91)	1.68+ (0.91)	1.68+ (0.91)	1.15 (0.90)	1.17 (0.89)	1.17 (0.90)
Industry munificence	-0.19 (0.22)	-0.21 (0.21)	-0.20 (0.21)	-0.10 (0.32)	-0.14 (0.32)	-0.14 (0.32)	-0.19 (0.29)	-0.20 (0.29)	-0.20 (0.29)

Table 2.4. (Continued)

Variables	Full Sample (N=13,294)			Low Performers (N=6,071)			High Performers (N=7,223)		
	Model 19	Model 20	Model 21	Model 22	Model 23	Model 24	Model 25	Model 26	Model 27
Constant	-2.08*** (0.18)	-2.49*** (0.19)	-2.49*** (0.19)	-2.12*** (0.24)	-2.55*** (0.26)	-2.54*** (0.26)	-1.98*** (0.24)	-2.36*** (0.25)	-2.36*** (0.25)
Log likelihood	-8356	-8313	-8313	-3722	-3702	-3702	-4634	-4611	-4611

Notes: Robust standard errors in parentheses (clustered on firm).

+ $p < 0.1$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$. All tests two-tailed.

Table 2.5. Results of Random Effects Regression Predicting Firm Performance Following Forced CEO Exit

Variables	Full Sample (N=7,612)		Low Performers (N=3,630)		High Performers (N=3,982)	
	Model 28	Model 29	Model 30	Model 31	Model 32	Model 33
Tie-driven CEO exit		-0.03** (0.01)		-0.04* (0.02)		-0.02** (0.01)
CEO power	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
TMT exit	-0.00** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00 (0.00)	-0.00 (0.00)
Board exit	0.00 (0.00)	0.00 (0.00)	0.00 (0.01)	0.00 (0.01)	0.00 (0.00)	0.00 (0.00)
CEO age	0.00 (0.00)	0.00 (0.00)	0.00 (0.01)	0.00 (0.01)	0.00 (0.00)	0.00 (0.00)
CEO is female	0.00+ (0.00)	0.00* (0.00)	0.00 (0.00)	0.00+ (0.00)	0.00 (0.00)	0.00 (0.00)
CEO tenure	0.01 (0.01)	0.01 (0.01)	0.02* (0.01)	0.02* (0.01)	0.00 (0.01)	0.00 (0.01)
Board independence ratio	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Log of employees	0.04 (0.03)	0.03 (0.03)	0.05 (0.06)	0.05 (0.06)	0.02 (0.03)	0.02 (0.03)
Material restatements	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Lawsuits against firm	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)
Industry concentration ratio	0.01 (0.01)	0.01 (0.01)	0.02 (0.01)	0.02+ (0.01)	-0.00 (0.00)	-0.00 (0.00)
Industry dynamism	0.01+ (0.01)	0.01* (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Industry munificence	0.03 (0.03)	0.02 (0.03)	0.14** (0.05)	0.13* (0.05)	-0.09+ (0.05)	-0.09+ (0.05)

Table 2.5. (Continued)

Variables	Full Sample (N=7,612)		Low Performers (N=3,630)		High Performers (N=3,982)	
	Model 28	Model 29	Model 30	Model 31	Model 32	Model 33
Constant	-0.06* (0.03)	-0.06* (0.03)	-0.07 (0.06)	-0.08 (0.06)	-0.04* (0.02)	-0.05* (0.02)

Notes: Robust standard errors in parentheses (clustered on firm).

+ $p < 0.1$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$. All tests two-tailed.

Table 2.6. Results of Random Effects Regression Predicting Firm Performance Following Forced TMT Exit

Variables	Full Sample (N=12,677)		Low Performers (N=5,785)		High Performers (N=6,892)	
	Model 34	Model 35	Model 36	Model 37	Model 38	Model 39
Tie-driven TMT exit		-0.00 (0.00)		-0.01 (0.01)		0.00 (0.00)
TMT power	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
CEO exit	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Board exit	0.01 (0.01)	0.01 (0.01)	0.01 (0.02)	0.01 (0.02)	0.01 (0.01)	0.01 (0.01)
TMT age diversity	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
TMT gender diversity	0.00 (0.02)	0.00 (0.02)	0.03 (0.03)	0.03 (0.03)	-0.02 (0.03)	-0.02 (0.03)
TMT ethnic diversity	-0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)
TMT education level diversity	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
TMT company tenure diversity	-0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)
TMT industry tenure diversity	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	-0.00 (0.00)	-0.00 (0.00)
TMT industry experience diversity	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.02+ (0.01)	-0.02+ (0.01)
Log of employees	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)
Material restatements	-0.00 (0.00)	-0.00 (0.00)	-0.00** (0.00)	-0.00** (0.00)	0.00 (0.00)	0.00 (0.00)
Lawsuits against firm	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	0.00 (0.00)	0.00 (0.00)
Industry concentration ratio	0.01+ (0.00)	0.01+ (0.00)	0.02* (0.01)	0.02* (0.01)	-0.00 (0.00)	-0.00 (0.00)
Industry dynamism	0.01+ (0.01)	0.01+ (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)

Table 2.6. (Continued)

Variables	Full Sample (N=12,677)		Low Performers (N=5,785)		High Performers (N=6,892)	
	Model 34	Model 35	Model 36	Model 37	Model 38	Model 39
Industry munificence	-0.04*** (0.01)	-0.04*** (0.01)	-0.04** (0.01)	-0.04** (0.01)	-0.04*** (0.01)	-0.04*** (0.01)
Constant	-0.00 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)	0.01 (0.01)

Notes: Robust standard errors in parentheses (clustered on firm).

+ $p < 0.1$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$. All tests two-tailed.

Table 2.7. Results of Random Effects Regression Predicting Firm Performance Following Forced Board Exit

Variables	Full Sample (N=12,652)		Low Performers (N=5,792)		High Performers (N=6,860)	
	Model 40	Model 41	Model 42	Model 43	Model 44	Model 45
Tie-driven board exit		-0.00 (0.00)		-0.01 (0.01)		0.00 (0.00)
Board power	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
CEO exit	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
TMT exit	0.01 (0.01)	0.01 (0.01)	0.01 (0.02)	0.01 (0.02)	0.00 (0.01)	0.00 (0.01)
Board age diversity	0.00 (0.00)	0.00 (0.00)	0.00 (0.01)	0.00 (0.01)	0.00 (0.00)	0.00 (0.00)
Board gender diversity	0.04 (0.02)	0.04 (0.02)	0.03 (0.05)	0.03 (0.05)	0.06+ (0.03)	0.06+ (0.03)
Board ethnic diversity	-0.00 (0.01)	-0.00 (0.01)	0.00 (0.02)	0.00 (0.02)	-0.00 (0.01)	-0.00 (0.01)
Board education level diversity	0.00 (0.00)	0.00 (0.00)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Board tenure diversity	-0.00 (0.00)	-0.00 (0.00)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)
Board industry tenure diversity	0.00 (0.01)	0.00 (0.01)	0.01 (0.02)	0.01 (0.02)	0.00 (0.00)	0.00 (0.00)
Board industry experience diversity	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.01* (0.00)	0.01* (0.00)
Log of employees	-0.00 (0.01)	-0.00 (0.01)	-0.01 (0.02)	-0.01 (0.02)	0.01 (0.01)	0.01 (0.01)
Material restatements	-0.00 (0.00)	-0.00 (0.00)	-0.00* (0.00)	-0.00* (0.00)	0.00 (0.00)	0.00 (0.00)
Lawsuits against firm	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	0.00 (0.00)	0.00 (0.00)
Industry concentration ratio	0.01+ (0.00)	0.01+ (0.00)	0.02* (0.01)	0.02* (0.01)	-0.00 (0.00)	-0.00 (0.00)
Industry dynamism	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)

Table 2.7. (Continued)

Variables	Full Sample (N=12,652)		Low Performers (N=5,792)		High Performers (N=6,860)	
	Model 40	Model 41	Model 42	Model 43	Model 44	Model 45
Industry munificence	-0.04*** (0.01)	-0.04*** (0.01)	-0.03** (0.01)	-0.03** (0.01)	-0.03** (0.01)	-0.03** (0.01)
Constant	-0.01 (0.01)	-0.01 (0.01)	0.00 (0.02)	0.00 (0.02)	-0.03** (0.01)	-0.03** (0.01)

Notes: Robust standard errors in parentheses (clustered on firm).

+ $p < 0.1$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$. All tests two-tailed.